THE FUTURE OF TANGIER ISLAND: BALANCING CULTURAL PRESERVATION AND CLIMATE ADAPTATION THROUGH MANAGED RETREAT

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Tangier Island, a culturally rich community in the Chesapeake Bay, is at severe risk due to climate change-driven sea-level rise and coastal erosion. This Article examines the urgent need for innovative legal frameworks to facilitate managed retreat as a means of safeguarding both the safety and heritage of the island's residents. By adopting managed retreat or voluntary buyouts as a proactive adaptation strategy, Tangier Island can shift from reactive responses to a well-planned, phased approach that prioritizes both public safety and the preservation of its unique culture. Transparent planning and meaningful community engagement are essential to ensure that the voices and values of Tangier Island's residents guide these efforts. This approach not only helps avoid potential legal challenges but also safeguards the island's cultural identity. Ultimately, this strategy paves the way for a resilient future, balancing the protection of the community's heritage with long-term climate adaptation.

I. INTRODUCTION

"We've been out here for hundreds of years, and we'd like to stay for hundreds more[,]" says Mayor James "Ooker" Eskridge of Tangier Island, as he points out at the remains of once-solid land now submerged beneath the Chesapeake Bay.[1] Eskridge's words show a community rooted in place, now forced to face the possibility that the land holding that history may not last. For

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[1] Katherine Hafner, *A "Way of Life" at Risk: The Race to Save Tangier Island from Erosion, Sea-Level Rise*, WHRO PUBLIC MEDIA (June 17, 2024); Julie Depenbrock, This Small Virginia Island Could Be Underwater Before the Next Century, NPR (Sept. 22, 2025, 6:00 AM ET).

Tangier Island, a centuries-old community in the middle of the Chesapeake Bay, the rapidly eroding shoreline presents an existential threat.[2] Once home to roughly 470 people, Tangier Island's population has fallen to about 240 residents, a community of descendants of early English settlers who have long made their living through fishing and crabbing.[3] Tangier's cultural and historical significance is profound, with residents speaking a dialect that has been preserved over centuries.[4] Despite its rich heritage, the island is rapidly disappearing, battered by the forces of rising sea levels and coastal erosion.[5] Scientific projections indicate that without significant intervention, the island may become uninhabitable within the next few decades.[6]

The U.S. Army Corps of Engineers (Corps) has documented that Tangier Island loses approximately 15 feet of shoreline each year due to sea-level rise and erosion.[7] This rapid erosion is part of a larger pattern of climate change-driven sea-level rise affecting the Chesapeake Bay area, with land subsidence and increased storm frequency compounding the issue, making coastal communities and ecosystems even more vulnerable.[8] Yet many residents believe that the island's disappearance is driven primarily by natural cycles, not climate change, creating a tension between scientific consensus and local perception.[9] This disconnect between the scientific consensus and local beliefs presents a unique challenge for policymakers and legal scholars as they grapple with how best to protect communities like Tangier while respecting their historical and cultural identities.[10]

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[2] *Tangier Island*, NAT'L PARK SERV. (Apr. 30, 2025); Kelly Carson, *The Water Is Coming: How Policies for Internally Displaced Persons Can Shape the U.S. Response to Sea Level Rise and the Redistribution of the American Population*, 72 HASTINGS L.J. 1279, 1283–84 (2021).
[3] Casey B. McCormack, *America's Next Refugee Crisis: Environmentally Displaced Persons*, NAT. RES. & ENV'T, Spring 2018, at 8, 11; Depenbrock, *supra* note 1; NAT'L PARK SERV., *supra* note 2.
[4] Veena Rao & Eliot Stein, *The Tiny US Island With a British Accent*, BBC (Feb. 7, 2018); *Tangier Islanders Retain Unique Dialect*, WAMU (June 27, 2011) [hereinafter *Tangier Island Dialect*].
[5] Roya Khosravi, Comment, *Bound by Paris: States' Human Rights Obligations as an Impetus for Environmental Protection and Action Against Climate Change*, 8 LSU J. ENERGY L. & RES. 287, 287–88 (2019).
[6] *Id.* (estimating that the island will be uninhabitable within fifty years).
[7] Press Release, Mark R. Warner, Warner & Kane Successfully Include Virginia Projects in Final Bipartisan Water Infrastructure Bill (Oct. 10, 2018) [hereinafter Warner & Kaine] (stating that one of their shared priorities is to have the Corps create a Tangier Island and Coastal Virginia plan).
[8] Jeff Hunt & Kara West, *Sea Rise and Storms on the Chesapeake Bay*, NAT'L GEOGRAPHIC (Oct. 19, 2023).
[9] Khosravi, *supra* note 5, at 287.
[10] *Id.*; Emily Flitter, *Residents of Tangier Island Reject "Climate" Victim Label*, REUTERS (Oct. 25, 2017).

Tangier Island's situation is not an isolated one; it represents the growing conflict faced by other vulnerable coastal communities.[11] These communities must confront the dual pressures of environmental change and long-standing property rights. While managed retreat—the voluntary relocation of communities—has been suggested as a solution for areas like Tangier Island, it raises significant legal and ethical concerns.[12] Relocation is viewed by many island residents as an existential threat to their cultural identity, leaving policymakers in a difficult position.[13] The dilemma requires a nuanced legal framework that can balance the protection of both property rights and human lives.

One potential solution lies in the concept of managed retreat.[14] This approach, although underutilized in current legal practice, enables the government to facilitate the planned relocation of communities from areas that are increasingly vulnerable to climate-related risks.[15] Managed retreat has been considered for coastal regions like Tangier, which face recurring natural hazards, providing the government with a structured framework to take decisive action to safeguard public welfare amid climate-related threats.[16] Managed retreat may offer a balanced way to address the competing interests of property rights protection and the urgent need to mitigate displacement due to climate change.

Part I will examine the climate change risks specific to Tangier Island, exploring both the immediate and long-term threats of sea-level rise, erosion, and

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[11] *See* McCormack, *supra* note 3, at 8, 12 (explaining how communities who believe climate change is a hoax are often the ones most impacted and displaced by natural disasters in states such as Florida and Texas).

[12] Scarlet Andrzejczak, *PAS Quicknotes: Managed Retreat*, AM. PLAN. ASS'N (June 1, 2024); Katie Sinclair, *Water, Water Everywhere, Communities on the Brink: Retreat As A Climate Change Adaptation Strategy in the Face of Floods, Hurricanes, and Rising Seas*, 46 ECOLOGY L.Q. 259, 308 (2019) (discussing how Tangier Island residents, compared to other communities, would rather hold out and wait until the island is uninhabitable before leaving, rather than act proactively).

[13] Hafner, *supra* note 1.

[14] Andrea McArdle, *Managing "Retreat": The Challenges of Adapting Land Use to Climate Change*, 40 U. ARK. LITTLE ROCK L. REV. 605, 609–10 (2018).

[15] *Id.*

[16] *See generally* Anne Siders, *Managed Coastal Retreat: A Legal Handbook on Shifting Development Away from Vulnerable Areas*, SABIN CTR. CLIMATE CHANGE, COLUM. L. SCH. (Oct. 2013) (exploring different managed retreat tools that governments can utilize such as setbacks, easements, buyouts, or land use restrictions); *see, e.g.*, Joseph Lee, *This Coastal Tribe Has a Radical Vision for Fighting Sea-Level Rise in the Hamptons*, VOX (Sept. 17, 2024) (discussing how the Shinnecock Nation has been talking about managed retreat from their coastal reservation).

flooding that jeopardize the island's future. This Part will analyze the scientific and socio-economic aspects of these risks, incorporating data from environmental studies and historical records, to provide a comprehensive overview of the challenges Tangier Island confronts in the face of climate vulnerability.

Part II will examine how Virginia's state laws address the urgent climate adaptation needs of Tangier Island. This Part will review the legal mechanisms at the local and state levels that impact climate adaptation efforts on the island. In particular, it will explore Virginia's constitutional mandates, statutory frameworks, and judicial precedents, analyzing how these elements either support or hinder adaptive strategies necessary to mitigate climate risks. Additionally, it will focus on how existing legal doctrines, like Dillon's Rule and takings law, create both opportunities and obstacles for the island's adaptation.

Furthermore, Part III will examine the roles of the federal government and the Chesapeake Bay Foundation (CBF) in addressing the specific climate challenges faced by Tangier Island. While CBF's environmental initiatives contribute to the broader Chesapeake Bay ecosystem, they do not directly address the island's immediate, localized adaptation needs. Additionally, federal programs like the Federal Emergency Management Agency's (FEMA) Building Resilient Infrastructure and Communities (BRIC) offer essential support for local resilience efforts; limitations in funding accessibility and application requirements often hinder Tangier's ability to benefit fully. This Part will explore the contributions and limitations of these actors in supporting Tangier Island's adaptation.

Lastly, Part IV proposes a managed retreat strategy or buyouts that relocate Tangier Island residents together to a nearby parcel of land, preserving their community and cultural ties while ensuring safety from rising sea levels. Through eminent domain, the state government can provide fair compensation, fund the construction of new homes, and support a phased, resident-led transition. This approach keeps the community close to the island, blending government assistance with local input to secure a resilient future that honors Tangier Island's heritage.

II. CLIMATE CHANGE RISK IN TANGIER ISLAND

Coastal communities around the world are increasingly vulnerable to the impacts of climate change, with sea-level rise, coastal erosion, and extreme weather events posing severe risks to their long-term viability.[17] Tangier Island

[17] Khosravi, *supra* note 5, at 288.

exemplifies the challenges faced by many coastal communities as they confront rising waters and the erosion of their land.[18] Research shows that climate-driven sea-level rise, erosion, and flooding interact with social and economic factors to heighten exposure and vulnerability in coastal regions.[19]

Scientific assessments documented by the International Panel on Climate Change (IPCC) identify accelerating sea-level rise and coastal erosion as significant and ongoing global phenomena.[20] The Chesapeake Bay region, where Tangier Island is located, is one of the fastest-sinking areas in the United States due to both sea-level rise and land subsidence.[21] Studies conducted by government agencies such as the National Aeronautics and Space Administration (NASA) and the Corps have documented that islands in the Chesapeake Bay lose a vast amount of shoreline each year, and without significant intervention, Tangier Island could become uninhabitable within the next few decades.[22]

Beyond the immediate physical risks, the socio-economic and cultural ramifications of climate change-induced displacement are substantial.[23] Tangier Island's population, which has deep-rooted historical and cultural ties to the land, faces a future where they may be forced to leave behind not just their homes but their unique way of life.[24] This situation has made the island a focal point for both environmental and legal scholars who examine the tension between property rights, government interventions, and community resilience.[25] Understanding the risks to Tangier Island requires a detailed examination of both the island's topology and its historic and growing flood risk.

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[18] Carson, *supra* note 2, at 1283.
[19] Robert J. Nicholls & Anny Cazenave, *Sea-Level Rise and Its Impact on Coastal Zones*, 328 SCIENCE 1517, 1517–1518 (2010).
[20] Michael Oppenheimer et al., *Sea Level Rise and Implications for Low-Lying Islands, Coasts and Communities*, *in* SPECIAL REPORT ON THE OCEAN AND CRYOSPHERE IN A CHANGING CLIMATE 343, 376–377 (2019) [hereinafter IPCC SPECIAL REPORT]; Khosravi, *supra* note 5, at 290.
[21] Jack Eggleston & Jason Pope, *Land Subsidence and Relative Sea-level Rise in the Southern Chesapeake Bay Region*, U.S. GEOLOGICAL SURV. 1–2 (2013).
[22] *See* Adam Voiland, *Great Fox is Disappearing*, NAT'L AERONAUTICS & SPACE ADMIN. (Dec. 1, 2019); Warner & Kaine, *supra* note 7.
[23] *See* Hafner, *supra* note 1 (demonstrating how Tangier island's culture and roots could be lost due to a shrinking population and coastal erosion).
[24] *Id.*
[25] McCormack, *supra* note 3, at 11; Carson, *supra* note 2, at 1295–1296.

A. Tangier Island and Its Neighborhood

Tangier Island, a small island located in the middle of the Chesapeake Bay, is home to a community of around 470 people whose ancestors have lived there for centuries.[26] The islanders speak a distinctive dialect tracing back to early English settlers and have a long-standing connection to the water, making their living primarily through the crabbing and fishing industries.[27] Despite its isolation and dependence on a fragile industry, Tangier Island is not classified as impoverished.[28] The average household income is $33,405, and the poverty rate is only 2.08%, significantly lower than Virginia's statewide poverty rate of 10.2% in 2023.[29] This economic stability contrasts with the challenges faced by many other rural communities, which grapple with equity issues arising from the impacts of climate change.[30]

Tangier Island is losing roughly 15 feet of its shoreline each year due to erosion.[31] If these trends persist, experts predict that the island could become largely "uninhabitable within the next 50 years."[32] The combination of higher water levels, stronger storms, more frequent flooding, and generalized human behavior has accelerated the erosion process, putting the homes, businesses, and livelihoods of Tangier residents at severe risk.[33] In addition to the physical threats posed by climate change, the loss of land endangers the community's cultural identity, which is deeply tied to their way of life on the island.[34]

Climate change is characterized by observable trends, including rising global temperatures, sea-level rise, and increasingly frequent extreme weather

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[26] McCormack, *supra* note 3, at 11.
[27] *Tangier Island Historic District*, VA. DEP'T HISTORIC RES. (last updated Apr. 18, 2025).
[28] *Tangier Population*, WORLD POPULATION REV. (last visited Nov. 5, 2024) (under 'Economic and Income' tab).
[29] *Id.*; Brad Kutner, *New Census Survey Shows Virginia Below Average Poverty Levels*, WVTF (Sept. 12, 2024).
[30] *See* Khosravi, *supra* note 5, at 288–289 (describing how poorer counties in the Southeast are "most at risk to suffer the worst effects of climate change." (internal citation omitted)).
[31] Warner & Kaine, *supra* note 7.
[32] *Id.*
[33] Ane Helen Toomey, *Notes from a Disappearing Island*, Land & Climate Rev. (Dec. 17, 2024); Jeffrey Moore & Lauren Acker, *Recurrent Flooding, Sea Level Rise, and the Relocation of At-Risk Communities: Case Studies from the Commonwealth of Virginia*, WM. & MARY L. SCH. VA. COASTAL POL'Y CTR. 14–18 (2018) (exploring Tangier Island as a case study for how communities at risk can implement adaptation measures).
[34] Moore & Acker, *supra* note 33, at 13.

events.[35] In response to these trends, activities associated with greenhouse gas emissions have become a central focus of policy discussions and mitigation strategies.[36] Behavioral and environmental economics emphasize that modifying human actions is critical to mitigation.[37] The IPCC reported that sociocultural factors and behavioral changes could reduce emissions by at least 4%, yet behavioral approaches remain underutilized.[38] In fact, only 0.12% of research funding related to climate change is allocated to social sciences.[39]

Despite this overwhelming scientific consensus, many residents of Tangier Island argue that climate change is not the primary cause of their land loss, attributing the erosion instead to natural cycles.[40] The islanders remain glued to the view that climate change is a hoax.[41] However, the pooling of water, submersion of marshland, and the expansion of internal waterways are all typical consequences of sea level rise caused by climate change.[42] This skepticism further complicates efforts to implement adaptive measures, such as managed retreat, that could mitigate the island's environmental challenges.

Additionally, even amidst the obvious environmental impacts, Tangier residents have largely opposed the idea of relocating, expressing a strong desire to remain on their ancestral land.[43] Many of the islanders view relocation as an existential threat to their cultural heritage, and they fear that moving to the mainland would lead to the dissolution of their tight-knit community.[44] The residents' attachment to their homes, combined with the economic dependence on the local fishing industry, has created a situation where traditional solutions such as eminent domain or forced relocation are politically and socially untenable.[45]

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[35] *Scientific Consensus: Climate Change*, NAT'L AERONAUTICS & SPACE ADMIN. (last visited Dec. 16, 2025); *Evolving Assessments of Human and Natural Contributions to Climate Change*, CONG. RSCH. SERV. 1, 7 (Aug. 11, 2021).
[36] CONG. RSCH. SERV., *supra* note 35, at 1–2; IPCC SPECIAL REPORT, *supra* note 20, at 324, 374.
[37] Anjali Narang, Comment, *Optimizing Nudges for Climate Change: Insights From Behavioral and Environmental Economics*, 54 ENV'T L. REP. 10646, 10646–47.
[38] Felix Creutzig et al., *Demand, Services and Social Aspects of Mitigation in* SIXTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE: CLIMATE CHANGE 2022: MITIGATION OF CLIMATE CHANGE [hereinafter SIXTH ASSESSMENT] 503, 536 (2022).
[39] Narang, *supra* note 37, at 10646.
[40] Khosravi, *supra* note 5, at 287–288.
[41] *Id.*
[42] Simon Worrall, *Tiny U.S. Island is Drowning. Residents Deny the Reason*, NAT'L GEOGRAPHIC (Sept. 7, 2018); Toomey, *supra* note 33.
[43] Hafner, *supra* note 1.
[44] *Id.*; Toomey, *supra* note 33.
[45] Hafner, *supra* note 1.

However, the island's future is becoming increasingly uncertain as the forces of nature continue to encroach upon their land, raising urgent questions about how to protect the community without infringing on their rights or cultural identity.[46]

The case of Tangier Island represents a growing challenge for coastal communities around the world that are facing similar threats from climate change.[47] The question of how to address climate-induced displacement in a way that balances environmental realities with respect for individual property rights and cultural preservation is a pressing issue, not just for Tangier Island, but for many other vulnerable areas as well.

B. Historic and Growing Risk of Flooding

Tangier's susceptibility to flooding has rapidly worsened over recent decades, driven by relentless coastal erosion and the increasing frequency of powerful storm surges.[48] Since the 1850s, the island has lost nearly two-thirds of its original landmass, a change accelerated by sea level rise and erosion.[49] This loss has not only diminished Tangier's physical boundaries but also heightened its vulnerability to the Chesapeake Bay's tidal shifts and severe weather.[50] Historical data also indicates a significant escalation in both the frequency and intensity of these events, with storms that were once considered rare now having an outsized impact on the town's infrastructure and safety.[51]

This problem, compounded by Tangier's low elevation, leaves the town highly exposed to tidal flooding, particularly during hurricanes and nor'easters.[52] Notably, the August 1933 Chesapeake-Potomac hurricane brought intense tidal surges, flooding much of Tangier Island and submerging homes up to their second stories.[53] The devastation forced around one-third of the town's residents to

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[46] Sinclair, *supra* note 12, at 290, 308; Toomey, *supra* note 33.
[47] Carson, *supra* note 2, at 1284 (quoting scientists' prediction that "even if humanity were to stop all [sea-level rise inducing] carbon emissions today, at least 414 towns, villages, and cities across the country would face relocation." (internal citation omitted)).
[48] ACCOMACK-NORTHAMPTON PLANNING DIST. COMM'N, THE EASTERN SHORE OF VIRGINIA 2021 HAZARD MITIGATION PLAN 330, 343–347 (2021) [hereinafter VA HAZARD MITIGATION PLAN].
[49] *Id.* at 343 (finding that over 75% of the island has disappeared from 1850-2015).
[50] *Id.* at 343–344.
[51] *Id.* at 344–347; *see also*, Does Tangier Have Wind Risk?, FIRST STREET (last visited Dec. 16, 2025) ("Average maximum wind speeds in Tangier are higher now than they were 30 years ago, and 100% of homes in Tangier have at least some risk.").
[52] VA HAZARD MITIGATION PLAN, *supra* note 48, at 8, 341.
[53] *Id.* at 10, 330.

relocate permanently due to widespread destruction and loss of property.[54] Since that time, hurricanes such as Isabel in 2003 and Sandy in 2012 have continued to demonstrate the vulnerability of Tangier Island to severe flooding, highlighting the need for proactive measures to protect the town and its residents.[55]

Hurricane Isabel struck in 2003, wreaking havoc across the Chesapeake Bay and causing catastrophic flooding on Tangier.[56] With wind gusts in the Chesapeake of up to 87 mph and storm surges between 4 and 6 feet off the Virginia coast, Isabel flooded homes, destroyed nearly half of the crab shanties crucial to Tangier's fishing industry, and damaged residents' homes and businesses.[57] The storm highlighted the fragile state of Tangier's infrastructure and the risks associated with repeated exposure to severe storms, especially given that many of the crab shanties are ineligible for flood insurance under the National Flood Insurance Program due to their location over water.[58] Furthermore, when Hurricane Sandy hit in 2012, it exacerbated these challenges.[59] Tangier once again experienced significant impacts to much of the island's infrastructure, requiring costly repairs.[60] The island's lack of natural barriers further exposes it to the force of wind-driven tides, worsening the effects of each passing storm.[61]

Today, the island faces flooding that interrupts daily life several times a year.[62] Climate projections indicate that Tangier could face increased flooding

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[54] *Id.* at 330.
[55] *Id.* at 15, 343–344.
[56] *Id.* at 15, 344–345.
[57] Kevin Ambrose, *Hurricane Isable Struck the Mid-Atlantic 15 Years Ago, and its Memory is Still Fresh as Florence Approaches*, WASH. POST (Sept. 11, 2018); *Isabel Anniversary*, NAT'L WEATHER SERV. (last visited Dec. 17, 2025); VA HAZARD MITIGATION PLAN, *supra* note 48, at 345.
[58] VA HAZARD MITIGATION PLAN, *supra* note 48, at 345.
[59] *Id.* at 344 (describing the grant from the state and Corps to address coastal erosion after the storm); Amy Brady, *The Communities Losing Ground to Climate Change*, THE NEW REPUBLIC (Aug. 31, 2018) (describing the destruction by Hurricane Sandy and how it dug up some skeletons from eroded graves).
[60] VA HAZARD MITIGATION PLAN, *supra* note 48, at 60 (stating that Hurricane Sandy caused over $6 million in damages on the Eastern Shore, "including significant damage in . . . Tangier and other bayside locations"); Brady, *supra* note 58.
[61] VA HAZARD MITIGATION PLAN, *supra* note 48, at 341, 343–344 (showing how significant coastal erosion, sea-level rise, and the impacts of hurricanes has left the island reliant on seawalls and jetties to protect them).
[62] Kaitlyn McGrath, *Yes, This Sinking Island in Virginia is Being Threatened by Climate Change*, WUSA 9 (Dec. 13, 2023) ("Whether it's a nor'easter or tropical storm, four to five times a year more and more of the island gets inundated.").

from regular tides alone within the next few decades.[63] The flooding risk is anticipated to intensify with continued land loss and rising sea levels, potentially rendering the island largely uninhabitable within the next few decades unless significant intervention occurs.[64] Despite efforts to address these risks, Tangier's existing hazard mitigation measures, including flood insurance and small-scale infrastructure adaptations, fail to address the escalating threats the town faces.[65] As floodwaters rise higher each year, Tangier requires more extensive, innovative interventions. Without immediate, sweeping changes, Tangier's viability as a livable community is at grave risk—adaptation plans alone will not suffice.

III. THE ROLE OF VIRGINIA STATE LAW IN CLIMATE ADAPTATION AND LAND USE FOR TANGIER ISLAND

Virginia's legal framework provides a complex legal landscape for climate adaptation efforts, encompassing constitutional mandates, statutory laws, and judicial precedents that both empower and constrain resilience-building initiatives. The increasing threats of flooding, coastal erosion, and rising sea levels on Tangier Island necessitate a comprehensive legal and policy strategy to protect both natural environments and human communities. This Part will examine the various legal mechanisms in Virginia that govern climate adaptation and land use, focusing on how state constitutional provisions, statutory laws, common law principles, and local ordinances interact in the context of climate adaptation.

Virginia's legal framework includes a variety of tools designed to address environmental challenges and guide land use in vulnerable areas like Tangier Island. Central to this framework are the State Constitution, state statutes, and common law doctrines. Additionally, local zoning ordinances and state-level initiatives form the bedrock of climate adaptation strategies. By analyzing Virginia's state laws, this Part aims to provide a clearer understanding of how the state's legal system supports or hinders climate adaptation efforts.

A. Virginia State Constitution

Article XI of the Virginia Constitution is the foundational policy statement on the conservation and protection of the state's natural resources, waters, and

[63] VA HAZARD MITIGATION PLAN, *supra* note 48, at 344–345.
[64] Warner & Kane, *supra* note 7.
[65] VA HAZARD MITIGATION PLAN, *supra* note 48, at 340–342.

lands.[66] Article XI, Section 1 emphasizes the Commonwealth's commitment to safeguarding its natural environment, which theoretically supports efforts to address climate-related challenges like those faced by Tangier Island.[67] The provision reads:

> To the end that the people have clean air, pure water, and the use and enjoyment for recreation of adequate public lands, waters, and other natural resources, it shall be the policy of the Commonwealth to conserve, develop, and utilize its natural resources, its public lands, and its historical sites and buildings. Further, it shall be the Commonwealth's policy to protect its atmosphere, lands, and waters from pollution, impairment, or destruction, for the benefit, enjoyment, and general welfare of the people of the Commonwealth.[68]

While this constitutional mandate affirms Virginia's responsibility to protect its natural resources, the provision is not self-executing, meaning it does not impose direct, enforceable obligations on state entities.[69] The Virginia Supreme Court in *Robb v. Shockoe Slip Foundation* interpreted Article XI, Section 1 to lack self-executing force, notwithstanding its articulation of a policy favoring preservation of natural and historic resources.[70] The court in *Robb* found that

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[66] VA. CONST. art. XI; Tyler Demetriou, Note, *Reinvigorating the Virginia Constitution's Environmental Provision*, 40 VA. ENV'T. L.J. 66, 68–69 (2022).

[67] Demetriou, *supra* note 66, at 68–69 (stating that Section 1 was intended to provide an enforceable right to a healthy environment and protection of the environment).

[68] VA. CONST. art. XI, § 1.

[69] Demetriou, *supra* note 66, at 72–73.

[70] Robb v. Shockoe Slip Found., 324 S.E.2d 674, 676 (Va. 1985)

> A constitutional provision may be said to be self-executing if it supplies a sufficient rule by means of which the right given may be employed and protected, or the duty imposed may be enforced; and it is not self-executing when it merely indicates principles, without laying down rules by means of which those principles may be given the force of law. Article XI, § 1, contains no declaration of self-execution, it is not in the Bill of Rights, it is not declaratory of common law, and it lays down no rules by means of which the principles it posits may be given the force of law. Instead, its language invites crucial questions of both substance and procedure.

while this constitutional provision emphasizes the importance of environmental conservation, it does not contain the necessary procedural or enforceable rules to mandate actions by the state.[71] This decision illustrates that legislative measures are required to operationalize the principles set forth in Article XI, Section 1.[72] The ruling highlighted that without such legislative backing, constitutional policy statements, although meaningful, do not independently impose obligations or enforceable duties on the Commonwealth or its agencies.

The non-self-executing nature of Article XI has significant implications for Virginia's approach to climate change for Tangier Island. While Article XI provides constitutional backing for environmental conservation, translating this policy into actionable climate adaptation strategies requires legislative action.[73] Whether the legislature will enact such measures is uncertain and depends on factors such as political will, economic priorities, and public pressure.[74] To have a practical effect, the state legislature must pass laws that give effect to Article XI.[75] Without legislative support, efforts to protect Tangier Island remain limited by the legal framework established by the courts' interpretation of the state's Constitution.[76]

B. Virginia State Statutes

Despite the existential threat of rising sea levels faced by its coastal communities, Virginia's statutory framework has yet to develop a targeted and comprehensive approach to address the unique vulnerabilities of Tangier Island. While some Virginia laws provide general mechanisms for climate adaptation, there is a clear gap when it comes to the specific, urgent needs for Tangier Island.

One of the primary statutes relevant to climate regulation in Virginia is the Virginia Clean Economy Act (VCEA), passed in 2020, which aims to achieve a

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(International citation omitted).

[71] *Id.* at 676–677.

[72] *Id.* at 677 ("Since the General Assembly already possessed the authority mentioned in section 2, the only purpose for adding that section to Article XI was to instruct the General Assembly to enact statutes whereby the public policy declared in section 1 could be executed.").

[73] *See, e.g.*, Demetriou, *supra* note 66, at 91–100 (arguing that in order to make Article XI effective at protecting the environment, that there should be a new constitutional amendment); *Robb*, 324 S.E. 2d at 677.

[74] A full examination of legislative options and future political viability is outside the scope of this Article.

[75] Demetriou, *supra* note 66, at 91, 96–99.

[76] *Id.* at 100.

transition to renewable energy by 2050.[77] While critical for addressing long-term climate change, it does not address the immediate risks threatening Tangier Island's survival.[78] Similarly, the Virginia Coastal Primary Sand Dune Protection Act (Sand Dune Act), designed to preserve sand dunes as natural barriers, offers limited relevance to Tangier Island, which relies on marshland ecosystems for its natural defenses—ecosystems that the act does not adequately protect.[79]

Additionally, the Resilient Virginia Revolving Fund (RVRF) represents a more direct approach to climate resilience by providing low-interest loans and grants for adaptation projects.[80] However, programs that rely on loans and grants pose inherent challenges because neither source of funding is guaranteed.[81] As a result, local communities like Tangier—which are most in need of adaptation projects—struggle to secure reliable, non-repayable support, leaving them vulnerable despite the existence of formal funding mechanisms. Without

[77] VA. CODE ANN. § 56-585.5 (2020). VCEA mandates a transition to 100% carbon-free electricity by 2050, with interim targets for carbon reduction, promotion of renewable energy sources such as wind and solar, and improvement of energy efficiency standards. *Id.* § 56-585.5(C)(1).

[78] *See* The Virginia Clean Economy Act (VCEA) Summary, DEP'T ENERGY (2021) (The VCEA mandates a Renewable Portfolio Standard (RPS), requiring Dominion Energy to achieve 100% renewable electricity by 2045 and Appalachian Power by 2050. It prioritizes the development of 16,100 MW of solar and onshore wind, 5,200 MW of offshore wind, and 2,700 MW of energy storage, with storage partially available for third-party ownership. However, even if these transition benchmarks are met on time, they likely would not occur fast enough to reverse the erosion and sea-level rise Tangier is currently experiencing).

[79] VA. CODE ANN. §§ 28.2-1400–1420. The Virginia Coastal Primary Sand Dune Protection Act was initially enacted in 1980 to preserve sand dunes in the tidewater region and was later expanded in 2008 to protect all dunes and beaches in the area. Coastal Primary Sand Dunes and Beaches, VA. INST. MARINE SCI. (last visited Dec. 17, 2025). The Virginia Marine Resources Commission administers the act and restricts activities that could harm these natural barriers. VA. CODE ANN. § 28.2-1406. While beneficial for coastal conservation, its impact on Tangier Island is limited due to the island's reliance on marshes rather than dunes, leaving it vulnerable to rising sea levels.

[80] VA CODE ANN. §§ 10.1-603.28–603.40; In 2022, the General Assembly established the Resilient Virginia Revolving Loan Fund (RVRF) by amending and reenacting §§ 62.1-199, 62.1-203 and introducing a new chapter under Title 10 of the Virginia Code, §§ 10.1-603.28–10.1-603.40. Resilient Virginia Revolving Loan Fund, DEP'T CONSERVATION & RECREATION (last visited Dec. 18, 2025). The RVRF provides financial assistance to local governments for projects addressing flooding, sea-level rise, and other climate-related issues. Resilient Virginia Revolving Fund, VA. RES. AUTH. (last visited Dec. 18, 2025).

[81] Gaia Larsen, Natalia Alayza & Molly Caldwell, How to Get Finance Flowing to Climate Adaptation, WORLD RES. INST. (Nov. 13, 2025) (describing barriers to scaling adaptation finances for vulnerable developing countries).

sufficient financial resources, Tangier struggles to access the capital needed for critical projects like seawalls or infrastructure elevation.[82]

The absence of explicit community-focused statutory support for Tangier Island highlights a critical shortcoming in Virginia's climate adaptation strategy. The Virginia Community Flood Preparedness Fund, for example, provides loan- and grant-based support for local resilience planning, and statewide frameworks—such as the Virginia Coastal Resilience Master Planning Framework and Phase I of the Coastal Resilience Master Plan—offer strategic guidance, yet none of these mechanisms require state agencies to design or implement adaptation projects for communities at the highest risk of climate-induced displacement.[83] The state has a Chief Resilience Officer to coordinate statewide resilience policy, and beginning in 2024, the General Assembly established the Office of Resilience under the Secretary of Natural and Historic Resources; as of May 2025, the office's three funded positions were filled, and the office is designed primarily as a coordination hub that aligns statewide planning and supports interagency implementation rather than directly implementing projects itself.[84]

For Tangier Island, this means that crucial projects, such as the construction of protective barriers, the reinforcement of the island's marshlands, and the development of long-term relocation plans, are left to sporadic federal grants and piecemeal state funding efforts.[85] Federal agencies such as FEMA can

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[82] *See* VA HAZARD MITIGATION PLAN, *supra* note 48, at 342, 344 (describing how, without federal or state assistance, Tangier is unable to elevate homes and improve infrastructure impacted by storms and erosion).

[83] VA. CODE ANN. § 10.1-603.25(B) ("Money in the Fund shall be used solely for the purpose of enhancing flood prevention or protection and coastal resilience"); DEP'T OF CONSERVATION & RECREATION, VIRGINIA COASTAL RESILIENCE MASTER PLANNING FRAMEWORK 4–6 (Oct.. 21, 2020) (summarizing the risks Virginia faces and the framework created to address them); DEP'T OF CONSERVATION & RECREATION, VIRGINIA COASTAL RESILIENCE MASTER PLAN PHASE I X–XII (Dec. 2021) (stating that due to the timeframe for publishing Phase I, "the future flood hazards for riverine, stormwater, and compound flooding as affected by sea level rise, nor . . . climate change" were considered).

[84] VA. CODE ANN. § 2.2-220.5(A); OFF. OF RESILIENCE & SEC'Y OF NAT. & HISTORIC RES., RESILIENCE IN THE COMMONWEALTH OF VIRGINIA: STATUS UPDATE 3-5 (July 2025).

[85] *See, e.g.*, Press Release, Sen. Tim Kaine, Warner & Kaine Announce Over $15.2 Million to Address Coastal Resilience in Virginia Beach and on Tangier Island (May 16, 2025) (announcing over $10 million of federal funds awarded to Tangier for dredgings and shoal removal to address erosion); *see also* Christopher Collette, *Saving Tangier: Disappearing Chesapeake Bay Island Receives Grant Money*, 13 NEWS NOW (June 3, 2024) (announcing over $2 million of state funds awarded to Tangier to protect a petroleum storage facility from flooding).

play a crucial role in providing disaster relief and funding for certain mitigation efforts.[86] However, these programs are often reactive and event-driven, focusing on post-disaster recovery rather than proactive measures to address long-term risks and community adaptation needs.[87]

C. Virginia Common Law and Dillon's Rule

Virginia's legal landscape imposes substantial barriers to climate change litigation, particularly for vulnerable communities like Tangier Island, which are directly impacted by rising sea levels and increased storm severity. These barriers are primarily rooted in restrictive common law doctrines and statutory limitations, such as Dillon's Rule, which significantly constrain local government authority. The impact of these legal restrictions is evident in recent Virginia cases addressing standing, insurance liability, and local regulatory powers. Together, these elements shape the unique and challenging environment for addressing climate harms within Virginia's judicial system.

i. Common Law Barriers to Climate Litigation

In Virginia, plaintiffs face considerable obstacles when attempting to bring common law claims for climate-related harms. These challenges are rooted not only in the stringent standing requirements but also in the doctrine of sovereign immunity, which generally requires state consent before a suit can proceed against them.[88] While some states create exceptions to sovereign immunity for certain issues, Virginia law does not have a blanket environmental exception to sovereign immunity.[89] Rather, the courts have clarified that while Article I, §11 is self-executing and therefore permits declaratory or injunctive relief claims against the Commonwealth, claims based on Article XI, §1 remain non-self-executing and

[86] *Funding by Disaster Type*, FED. EMERGENCY MGMT. AGENCY (last visited Dec. 18, 2025) (listing all funding options available to states, Tribes, communities, and territories by type of disaster).
[87] For the purposes of this Article, it is assumed that FEMA will continue to be able to provide this type of federal assistance to communities. The role of FEMA and other federal actors is addressed in Part IV.
[88] U.S. CONST. amend. XI.
[89] *See, e.g.*, GA. CODE ANN. § 50-21-1(a) (waiving sovereign immunity when the state, state agency, or department breaches a written contract).

are thus barred without legislative waiver.[90] The landmark case illustrating this recent development is *Layla H. v. Commonwealth*.[91]

In *Layla H.*, the plaintiffs, children living in Virginia, argued that the Commonwealth's practice of permitting fossil fuel infrastructure contributed to climate harms, including increased storm frequency and public health risks.[92] The plaintiffs presented extensive evidence of climate-related injuries, including exposure to extreme heat and other health issues related to increased pollution.[93] However, the court dismissed the case, holding that the plaintiffs lacked standing, stating that their injuries were diffuse and generalizable to the broader public rather than specific to the plaintiffs themselves.[94] Importantly, however, the decision clarified that Article I, § 11 is self-executing and therefore waives sovereign immunity for claims seeking declaratory or injunctive relief, whereas Article XI, § 1 is not self-executing and sovereign immunity cannot be waived unless the legislature affirmatively authorizes it.[95]

Layla H. illustrates Virginia's rigid adherence to standing requirements that require plaintiffs to show a concrete, particularized injury directly attributable to the defendant's actions—a standard that poses unique challenges in climate cases. This difficulty is not unique to Virginia. After *Lujan v. Defenders of Wildlife*, states nationwide adopted the modern three-part standing test requiring injury, causation, and redressability, making climate litigation challenging across most jurisdictions.[96] Because climate change often presents broadly shared harms with global causative factors, individual plaintiffs struggle to prove that their injuries are distinct from those faced by the general public—a requirement Virginia courts consistently uphold to prevent courts from becoming forums for

[90] Layla H. v. Commonwealth, 902 S.E. 2d 93, 100, 104–105 (Va. Ct. App. 2024) (stating that the Due Process Clause in Article I, § 11 is self-executing and permits suit against the Commonwealth, whereas under Article XI, § 1 environmental and public-trust claims remain non-self-executing and therefore barred by sovereign immunity).
[91] *Id.*
[92] *Id.* at 96–97.
[93] *Id.* at 97–98 (impacts included heat rashes, Lyme disease, and climate related-anxiety).
[94] *Id.* at 103–104 (holding that standing requires a plaintiff to show "a direct interest, pecuniary or otherwise, in the outcome of the controversy that is separate and distinct from the interest of the public at large," and concluding that plaintiffs failed to meet this standard (internal citation omitted)).
[95] *Id.* at 100–101.
[96] Lujan v. Defs. of Wildlife, 504 U.S. 555, 573–78 (1992) (holding that Article III standing requires a concrete and particularized injury, causation, and redressability, and explaining that generalized grievances shared broadly by the public do not confer standing); *Overview of Lujan Test*, CONST. ANNOTATED (last visited Dec. 18, 2025).

generalized policy grievances.[97] As noted in *Layla H.*, standing in Virginia requires a tangible benefit that would result from judicial intervention, which, due to the transboundary nature of climate change, is often unfeasible to establish at the local or state level.[98]

Similarly, in *AES Corp. v. Steadfast Ins. Co.*, the Virginia Supreme Court addressed whether insurers have a duty to defend energy companies against claims related to greenhouse gas emissions.[99] The court concluded that climate-related damages from greenhouse gas emissions did not constitute an "occurrence" or "property damage" under the commercial general liability policies, as these emissions were seen as an intentional action, rather than an unintended event.[100] *AES Corp.* illustrates a further limitation: traditional liability frameworks are often ill-suited to climate claims, as they depend on distinctions between intentional and accidental harms that are difficult to apply to complex, cumulative environmental damage. The restrictive approach to liability and coverage reflected in Virginia's common law precedents discourages broader efforts to address climate resilience at the local level by making it financially untenable for individuals and localities to pursue or defend against climate-related claims.

These cases show that Virginia's legal framework fails to adequately support climate-affected communities, especially those as vulnerable as Tangier Island. Strict standing requirements and limited judicial pathways leave few opportunities for relief in climate-based claims. Any future claim by Tangier residents would require a concrete, particularized injury traceable to state action under *Layla H.* They would also face the same hurdle in federal court under *Lujan*, which requires individualized injuries, causation, and redressability. Since climate impacts are diffuse, globally driven, and not easily linked to a single governmental actor, Tangier would struggle to satisfy standing requirements under either test. This raises the question: what other potential cause of action could Tangier Island pursue to seek climate relief? Ultimately, legislative intervention, rather than litigation, remains the most realistic path to meaningful climate protection.

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[97] *Layla H.*, 902 S.E. 2d at 101–102.
[98] *Id.* at 104 ("[G]iven the global nature of the climate change issue, Plaintiffs have not shown that they 'personally would benefit in a tangible way from the court's intervention.'" (internal citation omitted)).
[99] AES Corp. v. Steadfast Ins. Co., 725 S.E. 2d 532, 533 (Va. 2012).
[100] *Id.* at 538.

ii. Dillon's Rule and Restrictions on Local Governance

Beyond judicial barriers from standing requirements, sovereign immunity, and liability limitations, Virginia's adherence to Dillon's Rule of Statutory Construction (Dillon's Rule) significantly restricts the ability of local governments to independently address climate impacts.[101] Dillon's Rule, a doctrine established by Judge John Forest Dillon in the late 19th century, limits municipalities to powers expressly granted by the state legislature, as well as those that are either implied or essential to carry out municipal functions.[102] Virginia favors this model because it promotes uniformity across the state, which in turn supports fair business practices.[103]

However, the implications of Dillon's Rule for climate change are profound. Virginia operates under one of the strictest versions of Dillon's Rule in the country, creating a highly centralized governance structure.[104] The Virginia Supreme Court has consistently upheld this doctrine, reinforcing a centralized governance structure. For instance, in *Marble Technologies Inc. v. City of Hampton*, the court emphasized that local governments operate as extensions of the state with limited autonomy.[105] Similarly, in *Bragg Hill Corp. v. City of Fredericksburg*, the Virginia Supreme Court upheld municipal zoning actions only when clearly authorized by state statute.[106]

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[101] City of Richmond v. Prop. Ventures, Inc., 899 S.E.2d 82, 86–87, 547 (Va. Ct. App. 2024) (stating that "under Dillon's Rule, municipal governments have only those powers which are expressly granted by the state legislature, those powers fairly or necessarily implied from expressly granted powers, and those powers which are essential and indispensable." (internal citation omitted)).

[102] *Id.*; *See also* Clay L. Wirt, Dillon's Rule, VA. TOWN & CITY at 2 (Aug. 1989).

[103] *See* Hon. Jon D. Russell & Aaron Bostrom, *Federalism, Dillon Rule and Home Rule*, AM. CITY CTY. EXCHANGE at 4 (Jan. 2016) ("State governments want to bring economic growth and prosperity to the entire state; therefore it is rational for the state to allocate the proper amount of authority to local governments that will enable them to operate most effectively," thus states follow Dillon's Rule).

[104] *Id.*

[105] Marble Techs., Inc. v. City of Hampton, 690 S.E. 2d 84, 88 (Va. 2010) (The court reiterated that under Dillon's Rule, municipalities have "only those powers that are expressly granted, those necessarily or fairly implied from expressly granted powers, and those that are essential and indispensable," and "[i]f there is a reasonable doubt whether legislative power exists, the doubt must be resolved against the local governing body." (internal citations omitted)).

[106] Bragg Hill Corp. v. City of Fredericksburg, 831 S.E. 2d 483, 489 (Va. 2019)

> The Dillon Rule of strict construction controls our determination of the powers of local governing bodies. Municipalities have only those powers that are (1) expressly granted by the General Assembly, (2) "necessarily or fairly

In contrast, states like Florida have adopted the "Home Rule" to grant localities more self-governance.[107] For example, Florida municipalities are able to develop and implement their own climate adaptation strategies through programs such as the Resilient Florida Grant Program and the Florida Adaptation Planning Guidebook, which provide funding mechanisms, planning models, and technical guidance for local governments responding to sea-level rise, storm surge, and coastal erosion.[108] By comparison, Virginia's centralized approach requires communities like Tangier Island to obtain state approval before pursuing tailored adaptation measures, resulting in adaptation work that is frequently slowed or obstructed by legislative dependencies.[109] Consequently, local climate adaptation initiatives are frequently delayed or obstructed by the need for state legislative action.

Legal scholars argue that climate change will increasingly force difficult decisions, such as relocating vulnerable communities in Virginia, as adaptation becomes essential. Norfolk, for example, has had to grapple with the limitations in municipal power while also having to address a growing housing crisis, flooding, and sea-level rise.[110] In his article *Climate Adaptation Strategies: How*

> implied" from those express powers, and (3) "essential to the declared objects and purposes" of the municipality.

(internal citations omitted); *see also* Alexandria City Council v. Mirant Potomac River, LLC, 643 S.E. 2d 203, 206–208 (Va. 2007) (holding an amendment to a zoning ordinance as invalid because it was beyond the scope of an enabling statute).

[107] Karly Newcomb, Note, *Breaking Up with Dillon: A Practical Call for Virginia State & Local Government Law Reform*, 45 WM. & MARY ENV'T. L. & POL'Y REV. 247, 264 (2020); Judge James R. Wolf & Sarah Harley Bolinder, *The Effectiveness of Home Rule: A Preemption and Conflict Analysis*, 83 FLA. BAR J. 92 (June 2009) (stating that the Municipal Home Rules Power Act "guarantees that local governments retain governmental, corporate, and proprietary powers to enable them to conduct municipal government, perform municipal functions, and render municipal services.").

[108] *Resilient Florida Program*, DEP'T ENV'T PROT. (last visited Dec. 19, 2025); DEP'T ENV'T PROT. & FLA. COASTAL. MGMT. PROGRAM, FLORIDA ADAPTATION PLANNING GUIDEBOOK I (2018).

[109] *See, e.g.*, *City of Richmond*, 899 S.E. 2d 82, 87–88 (Va. Ct. App. 2024) (finding that, although the General Assembly granted the city the ability to "charge property owners for abatement of weeds" and to see payment of those charges through judicial actions and penalties, that under Dillon's Rule, that power is limited to weeds on a property owner's property, and does not control weeds that extend out to public areas or adjacent properties—the General Assembly would have to extend that power to the city in order for them to enforce that ordinance).

[110] Madison Teeter & Alexander Fella, *The Life Aquatic: Norfolk's Managed Retreat Puts Housing into Focus*, CURRENTS (June 21, 2022).

Do We "Manage" Managed Retreat?, Mark Nevitt raises the critical question: "How will Norfolk manage the proposed relocation of its community?"[111] Additionally, Mary-Carson Saunders, in *The Dillon Rule & Norfolk Sea Level Rise*, contends that despite the perceived constraints of Dillon's Rule, Norfolk has significant authority to implement adaptation measures, including constructing berms, seawalls, and enforcing zoning ordinances.[112] Saunders introduces a "Dillon Two-Step" framework to navigate these legal constraints, stating that many flood management strategies are permissible within existing statutory powers.[113] This framework involves (1) determining whether the locality has the authority under state law to act and, if so, (2) ensuring that the power is exercised in a manner consistent with legislative intent.[114]

Building on this perspective, Lauren Gill in *The Dillon Rule and Sea Level Rise: An Analysis of the Impact of the Dillon Rule on Potential Adaptation Measures the City of Poquoson May Implement*, argues that the Dillon Rule is unlikely to preclude localities from adopting adaptive measures.[115] Gill highlights that Virginia's General Assembly has conferred broad zoning and planning authority to local governments, enabling them to address flooding and sea-level rise.[116] By leveraging tools such as setbacks, zoning overlays, and floodplain management ordinances, local governments can advance the statutory goals of promoting public health, safety, and welfare while remaining consistent with legislative intent.[117]

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[111] Mark Nevitt, UNIV. OF PA. KLEINMAN CTR. FOR ENERGY POL'Y, CLIMATE ADAPTATION STRATEGIES: HOW DO WE "MANAGE" MANAGED RETREAT? 6, fn 10 (Aug. 25, 2020) (noting that Virginia is a Dillon's Rule state, and localities like "Norfolk may only exercise those powers that the state expressly grants to it.").

[112] Mary-Carson B. Saunders, *The Dillon Rule & Norfolk Sea Level Rise: An Analysis of the Limited Impact of the Dillon Rule on Planning for Sea Level Rise in Norfolk*, WM. & MARY L. SCH. VA. COASTAL POL'Y CTR. 2, 7–8 (2013) (discussing how Norfolk's existing ordinances, such as the Floodplain/Coastal Hazard Overlay District, enable localized responses to mitigate flooding risks, emphasizing that proactive adaptation measures are achievable within the Dillon Rule framework).

[113] *Id.* at 4–6.

[114] *Id.* at 4.

[115] Lauren Gill, *The Dillon Rule and Sea Level Rise: An Analysis of the Impact of the Dillon Rule on Potential Adaptation Measures the City of Poquoson May Implement*, WM. & MARY L. VA. COASTAL POL'Y CTR. 7– 9 (2013) (stating that although Virginia's reliance on Dillon's Rule restricts local governments from independently implementing sea-level rise adaptation measures without explicit authorization, courts generally uphold local land-use regulations as long as they remain within delegated statutory powers.).

[116] *Id.* at 6–7.

[117] *Id.* at 5, 10.

This discourse highlights the broader challenges posed by Virginia's reliance on Dillon's Rule. While scholars like Mary-Carson Saunders and Lauren Gill identify ways localities can navigate these constraints—such as leveraging zoning tools—the rule still limits proactive climate adaptation. For instance, Norfolk's effort to adopt stricter floodplain management standards required express state authorization before implementation, delaying local resilience measures.[118] Similarly, Hampton Roads municipalities have faced obstacles in advancing sea-level rise adaptation projects without enabling legislation.[119] The need for express state authorization often delays or obstructs timely responses, leaving vulnerable communities like Tangier Island at risk.

D. Zoning Regulations

The Chesapeake Bay Preservation Act (CBPA or the Act) represents Virginia's proactive approach to addressing climate change issues affecting the Bay.[120] Enacted in 1988, the CBPA aims to protect water quality in the Bay by regulating land use and development within the watershed.[121] The Act designates areas as Resource Protection Areas (RPAs) or Resource Management Areas (RMAs), which impose strict limits on new development in sensitive zones, such as wetlands, shorelines, and tidal areas, to reduce nonpoint source pollution.[122]

While these regulations intend to preserve natural buffers and mitigate runoff, Tangier Island itself does not have any local zoning laws that go beyond the requirements and regulations of the CBPA.[123] Historically, this framework has failed to address the critical issue facing Tangier, submersion due to rising sea levels, by restricting development without offering viable solutions for long-term

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[118] *See* *Norfolk's Revised Zoning Ordinance Aims to Improve Flood Resilience*, PEW CHARITABLE TR. (Nov. 2019) (describing how Norfolk had to wait for the General Assembly to ask the Virginia Institute of Marine Science on how to combat coastal flooding, before the city could develop and implement new flooding ordinances).

[119] *See, e.g.*, FY2025 Federal Legislative Priorities, HAMPTON ROADS MIL. & FED. FACILITIES ALL. 7–8 (2024) (requesting support for legislation to allow federal agencies to assist with projects and development).

[120] VA. CODE ANN. §§ 62.1-44.15:67–62.1-44.15:79.

[121] *Chesapeake Bay Preservation Act*, DEP'T ENV'T QUALITY (last visited Dec. 19, 2025).

[122] 4 VA. ADMIN. CODE §§ 50-90-10–50-90-270.

[123] *Tangier Zoning Ordinance*, TANGIER ISLAND (Jan. 4, 2028) (CBPA overlay is found in Article 4); *Tangier Town Plan*, TANGIER ISLAND 9–11, 13 (Nov. 20, 2001) (stating that Tangier does not have any environmental protection ordinances besides those required by CBPA).

adaptation.[124] In 2020, however, the General Assembly amended the CBPA to require consideration of sea level rise and climate change impacts, and the State Water Control Board subsequently updated its regulations to reflect this mandate.[125] Guidance to support implementation was recently finalized; however, the success and how these requirements and adaptation measures will be implemented are still uncertain.[126] Thus, while the amendment represents progress, the CBPA's emphasis remains largely on conservation, and only time will tell if the guidance provides a clear pathway for proactive adaptation; however, Tangier's residents continue to face the existential threat of climate change with limited options for relief. The CBPA effectively traps the island's residents in a regulatory framework that prevents expansion or adaptive infrastructure while only recently providing guidance on how to do so, and raising the possibility of triggering takings claims.[127]

E. Takings Clause Defense Against Climate Adaptation Measures

Zoning regulations in Virginia, as discussed above, focus heavily on conservation but often lack clear pathways for implementing long-term solutions or adaptive infrastructure. This is a major challenge for Tangier Island, as property owners can push back against climate adaptation measures by claiming that the loss of economic use of their land violates their Fifth Amendment rights under the Takings Clause.[128] The Takings Clause ensures that private property cannot be "taken for public use, without just compensation," which raises potential claims when adaptation measures infringe upon private property rights.[129] Balancing the need for public climate adaptation with the islanders' strong desire to remain on Tangier Island presents a significant challenge.

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[124] *Tangier Zoning Ordinance*, *supra* note 123 (see article 4, §§ 4–6, laying out the requirements and restrictions on development in RPA and RMAs).
[125] VA. CODE ANN. § 62.1-44.15:72(B); 9 VA. ADMIN. CODE § 25-830-155.
[126] *Guidance Memo No. 25-2004*, DEP'T ENV'T QUALITY (June 17, 2025); *Local Program Regulations & Guidance*, DEP'T ENV'T QUALITY (last visited Dec. 22, 2025).
[127] Mark Nevitt, *The Legal Crisis Within the Climate Crisis*, 76 STAN. L. REV. 1051, 1057–1060 (2024) (describing how different takings claims need to evolve to match climate change adaptation strategies by local governments).
[128] U.S. CONST. amend. V.
[129] *Id.* The Virginia Constitution has a similar provision requiring just compensation for the taking of private property by state and local governments. VA. CONST. art. I, § 11 ("No private property shall be damaged or taken for public use without just compensation").

i. Physical Takings, Regulatory Takings and the Public Use Requirement

Efforts to mitigate climate impacts, such as land-use restrictions, managed or unmanaged retreat policies, or infrastructure projects, may lead to disputes over whether such measures constitute physical or regulatory takings.[130] Physical takings involve the direct appropriation of private property, while regulatory takings occur when government regulations limit the use of a property to the point where it effectively deprives the owner of economically viable use.[131] In *Lucas v. South Carolina Coastal Council*, the U.S. Supreme Court held that regulations that deprive land of all economic utility amount to a regulatory taking, otherwise known as a per se taking.[132] In coastal communities, like Tangier Island, adaptation measures, like building restrictions to protect marshlands, could trigger takings claims if property owners demonstrate that such actions significantly impair the value or use of their property.[133]

Additionally, the Takings Clause requires the government to demonstrate that its appropriation of private property is for "public use."[134] While individuals may argue that certain government actions do not constitute public use for the purposes of takings, courts have broadly interpreted this requirement to include legitimate public purposes, such as public safety and economic stability.[135] In *Kelo v. City of New London*, the Supreme Court upheld takings for economic development, and similarly in *Berman v. Parker*, the Supreme Court held that

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[130] Nevitt, *supra* note 127, at 1057–1059.
[131] *Id.* at 1069, 1072.
[132] Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1019 (1992) ("We think, in short, that there are good reasons for our frequently expressed belief that when the owner of real property has been called upon to sacrifice all economically beneficial uses in the name of the common good, that is, to leave his property economically idle, he has suffered a taking." (emphasis omitted)). Present day regulatory takings law is shaped by key decisions such as *Penn Central Transportation Co. v. City of New York*. Penn Central Transportation Co. v. City of New York, 438 U.S. 104, 124–130 (1978) (*Penn Central*). In *Penn Central*, the court established a balancing test for regulatory takings, wherein a court considers (1) the economic impact of the regulation, (2) its interference with distinct investment-backed expectations, and (3) the character of the government action in order to determine if a taking has occurred. *Id.* at 124. The court ultimately held that New York's restriction on constructing an office building atop Grand Central Station did not constitute a taking, emphasizing that regulatory actions promoting the public good may not require compensation. *Id.* at 135–138.
[133] Nevitt, *supra* note 127, at 1072–1073.
[134] Kelo v. City of New London, 545 U.S. 469, 484, 490 (2005).
[135] *Id.* at 480–490.

eliminating unsafe conditions also satisfies the public-use requirement.[136] For Tangier Island, managed retreat options align with these requirements because addressing rising seas and preserving the community's cultural and economic identity could be allowable public purposes and uses. These actions serve broader societal benefits, justifying the use of eminent domain for proactive climate adaptation.

Virginia, however, narrowed this authority following *Kelo*. Effective January 1, 2013, the Commonwealth amended Article I, § 11 of its Constitution to prohibit takings primarily for private enterprise or economic development and shifted the burden to the condemner to prove that a taking is genuinely for public use without any presumption in its favor.[137] This post-*Kelo* divergence matters because federal Takings doctrine permits public purpose takings such as climate-driven relocation, while Virginia requires stronger justification and rejects condemnations whose dominant purpose is economic increase rather than public necessity.

Takings highlight the significant hurdles that shape climate adaptation strategies on Tangier Island. Government actions, such as marshland restoration or development restrictions in coastal zones, could lead to takings claims from islanders, who might argue that these adaptation and mitigation measures effectively deprive them of property value or viable use.

ii. Implications for Tangier Island's Adaptation Efforts

The potential for takings claims complicates the implementation of adaptation strategies that Tangier Island urgently needs to address its vulnerability to sea-level rise and erosion. Projects such as marshland restoration or restrictions on development near fragile coastal zones could face legal challenges from property owners claiming significant impairment of property value or use, potentially qualifying as regulatory or physical takings.[138]

Without careful statutory and regulatory guidance, climate adaptation measures could inadvertently trigger takings claims, which would require the state to provide compensation, imposing a significant financial burden on Virginia. This challenge demonstrates the need for a nuanced approach to climate policy

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[136] *Id.* at 489–490; Berman v. Parker, 348 U.S. 26, 35–36 (1954).
[137] H.B. 2954, 154th Leg. (Va. 2007); *Proposed Amendment to Virginia's Constitution Could Limit Government's Use of Eminent Domain*, BEAN KINNEY & KORMAN (Mar. 1, 2012).
[138] Nevitt, *supra* note 127, at 1071–1076.

that both respects property rights and advances essential adaptation measures. For instance, compensation-based adaptation strategies or buyout programs could provide alternatives for property owners on Tangier Island whose land is at risk, reducing the likelihood of legal pushback while offering residents viable paths to retreat or adapt.[139]

An example of a community that faced similar challenges offers potential solutions for Tangier Island. In Alaska, the village of Newtok faced chronic flooding and erosion from melting permafrost.[140] Through federal funding and collaborative planning, the community was relocated to a safer site, Mertarvik, to ensure cultural and social continuity.[141] Importantly, the process did not lead to significant takings claims because the community was closely involved in the decision-making process, and the relocation happened over many years.[142] Substantial federal resources supported the effort, reducing the financial burden on individual property owners and mitigating potential legal disputes.[143] For Tangier, this model illustrates that retreat can proceed with minimal potential for a takings claim if the process is consensual, well-resourced, and structured around community preservation rather than compulsory removal.

Tangier Island's challenges reveal the limitations of relying solely on existing conservation laws to address urgent climate risks. For instance, the Sand Dune Act focuses on protecting natural habitats but does not address the specific needs of communities like Tangier.[144] The Virginia Department of Environmental Quality's (DEQ) Water Protection Program (VWP), requires those applying to do certain activities that will impact surface waters and wetlands to avoid and

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[139] Robert Freudenberg, et al., *Buy-In for Buyouts: The Case for Managed Retreat from Flood Zones*, LINCOLN INST. OF LAND POL'Y 22–32 (Sept. 2016) (describing features of successful buyout programs and providing examples).
[140] Sasha Kahn, Note, *It Takes a Village: Repurposing Takings Doctrine to Address Melting Permafrost in Alaska Native Towns*, 39 ALASKA L. REV. 105, 109–110 (2022).
[141] *Id.* at 110.
[142] Sally Russell Cox, *An Overview of Erosion, Flooding, and Relocation Efforts in the Native Village of Newtok*, DEP'T COMMERCE, CMTY., ECON. DEV. 4, 13, 20 (Apr. 20, 2007); Emily Schwing, *Although Everyone Has Moved, Newtok's Relocation is Far From Over*, KTOO (June 11, 2025). Elizaveta Barrett Ristroph, a lawyer advising Alaska Native villages, noted that future actions by such communities could succeed if they are compensated at every stage and have a strong voice in designing the process. Email conversation with Elizaveta Barrett Ristroph, Att'y (on file with author).
[143] Kahn, *supra* note 140, at 111–112; *Newtok Residents Begin Relocation to Mertarvik*, DENALI COMM'N (last visited Dec. 22, 2025) (stating that the town received over $15 million in federal funds for the relocation).
[144] VA. CODE ANN. §§ 28.2-1400–1420.

minimize impacts to wetlands, and when impacts are unavoidable, to provide compensatory mitigation that maintains no net loss of acreage or function.[145] These requirements increase cost, review time, and engineering demands for any stabilization project on Tangier.[146] Additionally, the Virginia Marine Resources Commission (VMRC) regulates tidal wetlands under the Tidal Wetlands Act, and instructs regulators to permit living shorelines as the default approach unless science shows that a natural system will not work.[147] The Tidal Wetlands Act prioritizes protecting habitat and water quality, but it also makes it much harder to build bulkheads, breakwaters, or seawalls when erosion is severe.[148] The measures available protect ecosystems, but they fall short of securing Tangier's future.

Tangier Island sits in a regulatory gray zone where legal authority exists to protect wetlands, but few clear pathways or sustained funding streams support adaptation at the scale required. Virginia's Community Flood Preparedness Fund (CFPF) offers grants and loans for flood-mitigation projects, yet the program must support the entire coastline, and available funding does not approach what would be necessary to secure an island already losing land year after year.[149] In practice, this leaves Tangier with permission to adapt but without the resources to implement the kind of stabilization needed—previously estimated to cost tens of millions of dollars.[150] Meaningful protection will require legislation that couples ecological safeguards with long-term financial support, so communities like Tangier are not asked to survive climate change on conservation policy alone.

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[145] VA. CODE ANN. §§ 62.1-44.15:20–62.1-44.15:21.

[146] *Wetlands & Streams*, DEP'T ENV'T QUALITY (last visited Dec. 22, 2025) (outlining when a permit is needed, how to apply for a permit, and providing checklists for each permit application type).

[147] VA. CODE ANN. §§ 28.2-1300–23.2-1320; S.B. 809, 161st Leg. (Va. 2020) (mandating living shorelines as the default action to address coastal erosion); Charlotte Bieri, *Clarifying the Virginia Tidal Wetlands Act: Creating Criteria to Propel Implementation of Living Shorelines*, VT. L. REV. (Mar. 18, 2024).

[148] Bieri, *supra* note 147.

[149] *Community Flood Preparedness Fund Grant and Loans*, DEP'T CONSERVATION & RECREATION (last visited Dec. 22, 2025). For example, in the current round of applications, there is only $50 million and $35 million available for grants and loans, respectively. *Id.*

[150] McCormack, *supra* note 3, at 11.

IV. OTHER ACTORS IN ADDRESSING CLIMATE CHANGE CHALLENGES ON TANGIER ISLAND

In addition to state-level actions, the federal government and regional environmental organizations play a critical role in tackling the climate change challenges faced by Tangier Island. Each entity has its approach and resources, and while their efforts can be significant, a lack of coordination often hampers comprehensive and effective adaptation strategies. This Part will examine the contributions of the federal government and regional environmental initiatives, while also addressing the limitations these actors face. It will emphasize how their efforts intersect with state actions to address the specific vulnerabilities confronting Tangier Island.

A. The Federal Government

The federal government's involvement in addressing climate-related challenges for at-risk communities operates primarily through initiatives like FEMA's Building Resilient Infrastructure and Communities (BRIC) program and the development of Hazard Mitigation Plans (HMPs).[151] These programs aim to assist local governments in identifying and addressing vulnerabilities, providing funding, and supporting projects that reduce the impact of climate-related threats.[152] However, these federal efforts face limitations in execution that constrain their impact, particularly for highly vulnerable, resource-limited communities like Tangier Island.

For communities grappling with intensified risks from coastal erosion, frequent flooding, and infrastructure vulnerability, federal support serves as a vital component of adaptation efforts. Despite this, the complexities of program access and eligibility often hinder smaller, high-risk communities from fully leveraging these resources. Tangier Island demonstrates how crucial federal initiatives are for local communities in urgent need of support, yet these programs often remain out of reach.

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[151] *Building Resilient Infrastructure and Communities*, FED. EMERGENCY MGMT. AGENCY [hereinafter *BRIC*] (last visited Dec. 22, 2025); *Hazard Mitigation Planning*, FED. EMERGENCY MGMT. AGENCY [hereinafter *HMPs*] (last visited Dec. 22, 2025).
[152] *BRIC*, *supra* note 151; *Hazard Mitigation Planning for States*, FED. EMERGENCY MGMT. AGENCY (last visited Dec. 22, 2025).

i. Building Resilient Infrastructure and Communities Initiative

The BRIC program plays a prominent role in federal efforts to support resilience against natural hazards, including climate change impacts.[153] BRIC funds are directed at pre-disaster mitigation projects aimed at building community resilience and lessening the impact of future disasters.[154] In theory, this program aligns with Tangier Island's pressing needs by offering financial support for infrastructure projects that protect communities from the direct consequences of climate change, such as sea-level rise and coastal erosion.[155] However, despite its potential, BRIC's implementation is insufficient to address the unique vulnerabilities of Tangier Island.

BRIC's competitive funding structure poses significant challenges for smaller, economically constrained communities like Tangier Island, where resources for navigating complex application processes are limited.[156] BRIC requires applicants to meet a set of rigorous technical, cost-effectiveness, and feasibility criteria, which are particularly burdensome for a community with limited technical expertise and financial resources.[157] While Tangier Island applied for BRIC funding in 2020 to do a feasibility study and preliminary design for a microgrid power project, the city failed to receive any funding. Projects that received funding were selected in Summer 2021and received funding in December 2021; this delay in receiving funds highlights a systemic issue with BRIC's timeline, which is ill-suited for communities facing immediate threats from climate change.[158] Moreover, the application itself was not directly aimed at addressing Tangier's most pressing climate adaptation needs, demonstrating the

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[153] *BRIC*, *supra* note 151.
[154] *Hazard Mitigation Assistance Program and Policy Guide*, FED. EMERGENCY MGMT. AGENCY 10 (Jan. 20, 2025).
[155] *Id.* at 8.
[156] Brett March, *The Unexpected Barrier Preventing American Small Towns From Accessing Federal Climate Funds*, PREVENTIONWEB (Jan. 20, 2023) (explain how the matching fund requirement is difficult for small rural communities).
[157] Anna Weber, *Building Resilience, BRIC by BRIC*, NAT. RES. DEF. COUNS. (Sept. 1, 2021).
[158] *Flood Mitigation Assistance FY 2020 Subapplication Status*, FED. EMERGENCY MGMT. AGENCY [hereinafter *FY 2020 Subapplication Status*] (last visited Dec. 22, 2025); Camille Crain, *Building Resilient Infrastructure and Communities (BRIC)*, FED. EMERGENCY MGMT. AGENCY 4 (July 14, 2021). Some applications were marked as needing further review, meaning that the applicants are potentially still waiting for a decision. *Id.* at 11.

difficulty small communities face in aligning their adaptation priorities with BRIC's funding mechanisms.[159]

Moreover, BRIC's annual funding cycle and phased approval process result in delays that are detrimental to communities facing immediate climate threats.[160] Under the BRIC program, subapplicants, including local governments such as cities, towns, counties, special districts, Tribal governments, and eligible nonprofit entities, must apply through a state or Tribal intermediary rather than directly to FEMA.[161] The program's competitive nature further exacerbates this issue; in FY 2020, FEMA received 991 subapplications but selected only 406 for further review, meaning that while they were selected for funding, additional information may be needed, and they are not guaranteed any funding.[162] This prolonged process highlights the extreme difficulty of securing actual funding through BRIC. Tangier's vulnerability to rapid erosion and recurring storm surges necessitates support to implement comprehensive adaptation measures. Given these issues, BRIC's model of competitive funding distribution, though effective in some contexts, fails to accommodate the urgency of adaptation efforts required by highly vulnerable and resource-limited communities like Tangier Island. The program has since been put on hold at the federal level, adding further uncertainty for communities attempting to secure resources before land loss becomes irreversible.[163]

ii. Hazard Mitigation Plans

FEMA-approved HMPs serve as strategic frameworks that guide local governments in identifying and addressing vulnerabilities to natural hazards.[164] For Tangier Island, participation in HMPs provides a foundational layer of risk

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[159] *Virtual Workshop: Enhancing Community Energy Resilience through FEMA BRIC*, NAT'L ASSOC. STATE ENERGY OFF. 35–37 (Aug. 24–26, 2021) (describing the application Tangier Island submitted and all the tasks that needed to be done prior to the Feasibility Analysis and Preliminary Design).

[160] *FY 2020 Subapplication Status*, *supra* note 158.

[161] *Notice of Funding Opportunity (NOFO): FY 2020 Building Resilient Infrastructure and Communities*, FED. EMERGENCY MGMT. AGENCY 6 (Aug. 2020).

[162] Crain, *supra* note 158, at 11; *Identified for Further Review (IFFR)*, FED. EMERGENCY MGMT. AGENCY 6 (July 23, 2024). Only 22 projects in FY 2020 were ultimately selected for funding. Crain, *supra* note 158, at 12.

[163] *After FEMA Pulls the Plug on BRIC, What Comes Next Is Still a Mystery*, NAT'L SOC'Y OF PROF'L ENG'RS (June 18, 2025).

[164] *See, e.g.*, VA HAZARD MITIGATION PLAN, *supra* note 48, at 1–2 (providing background on the HMP and the goals of this plan).

assessment and resilience planning. However, while the HMP framework helps identify risks and mitigation priorities, it lacks the robust, federally supported implementation mechanisms, such as the BRIC funding, needed to convert these plans into effective adaptation projects.[165] The county's HMP and hazard identification for Tangier demonstrates the urgency of measures such as shoreline stabilization and elevated housing to address the community's low elevation and high exposure to coastal hazards.[166] Nonetheless, without sufficient and accessible funding sources from the state and federal government, many of these proposed adaptations remain unrealized, leaving the community vulnerable.[167]

Tangier Island is at a breaking point where mitigation efforts are no longer sufficient to combat the island's escalating climate threats.[168] HMPs, while useful for identifying vulnerabilities and setting risk-reduction goals, focus primarily on prevention. Island strategies like elevated housing and seawalls are not aspirational—they are indispensable.[169] Yet, the funding needed for such large-scale adaptation projects likely far surpasses what current HMP frameworks and federal grant programs like BRIC and HMGP can provide.[170]

The divide between mitigation and adaptation illustrates the inadequacy of current approaches in meeting Tangier's critical needs. HMPs rely on sporadic and limited federal funding, leaving communities like Tangier with financial support that fails to address the scale of their challenges. To bridge this gap, federal programs need to work closely with state and local governments to prioritize urgent, high-risk adaptation projects for places like Tangier Island. Making funding more accessible and focusing on comprehensive adaptation rather than small, incremental measures are critical steps. Without these changes, Tangier Island's future grows more uncertain as climate threats intensify.

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[165] *Id.* at 2, 340–352.
[166] *Id.* at 343–349.
[167] *E.g.*, *id.* at 29 (stating that the plan will be used to develop other local plans and to try and secure funding to address impacts of storms or other disasters).
[168] *Id.* at 329.
[169] *Id.* at 342–344.
[170] *Id.* The Town of Tangier has not directly managed a grant under the Hazard Mitigation Grant Program (HMGP). *Id.* at 342. The Accomack-Northampton Planning District Commission has elevated three homes on Tangier under using HMGP and six homes with Disaster Recovery Initiative funds following Hurricane Floyd in 1999. *Id.* After Hurricane Isabel in 2003, 12 homes were elevated, but no projects have been completed since, as the program has become cost-prohibitive for residents. *Id.*

iii. U.S. Army Corps of Engineers

The Corps derives its authority from Congress through key legislation such as the Rivers and Harbors Act of 1899, Clean Water Act, and Marine Protection, Research and Sanctuaries Act.[171] What this means for Tangier Island is that the Corps has the jurisdiction to address its pressing environmental challenges, including severe erosion and rising sea levels. This legislative framework enables the Corps to implement measures focused on erosion control, shoreline stabilization, and the long-term protection of the island's navigable waters and surrounding habitats.[172]

Recently, the Corps Norfolk District collaborated with U.S. Senator Tim Kaine to address the critical challenges facing Tangier Island, particularly its susceptibility to erosion and rising sea levels.[173] Through this partnership, Senator Kaine secured $800,000 in fiscal years 2023 and 2024 funding to study and get permits to use dredged materials for coastal resilience initiatives, which was complemented by President Biden's proposed $10.3 million allocation in fiscal year 2025.[174] While these efforts are important, they do not address the long-term challenges of sea-level rise and land subsidence. Incremental projects alone cannot ensure the island's survival. Tangier Island urgently needs comprehensive adaptation strategies, such as infrastructure relocation, to move beyond temporary fixes and create lasting solutions. Without a clear focus on adaptation, the island's future remains uncertain.

The Corps has estimated that coastal engineering services aimed at stabilizing Tangier Island and mitigating erosion would cost $30 million.[175] Critics point out that allocating $30 million for a community of 470 residents—approximately $63,830 per person—on an eroding barrier island is economically imprudent, especially given the inevitability of continued erosion.[176] Tangier's contributions, such as its role in the Chesapeake Bay's blue crab industry and its cultural and historical significance, are undeniably important, but they do not equate to the national-scale economic and infrastructure stakes seen in places like

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[171] *Pictorial Representation of Jurisdiction*, ARMY CORPS ENG'R 3 (last visited Dec. 22, 2025).
[172] *Jurisdiction*, ARMY CORPS ENG'R PORTLAND DIST. (last visited Dec. 22, 2025).
[173] Press Release, U.S. Sen. Tim Kaine, ICYMI: Kaine Meets With U.S. Army Corps of Engineers Norfolk District to Discuss Tangier Island and Other Projects to Boost Resiliency in Hampton Roads (Apr. 11, 2024).
[174] *Id.*
[175] McCormack, *supra* note 3, at 11.
[176] *Id.*

Manhattan, where billions are spent on coastal defenses to protect millions of residents and a global financial hub.[177] For Tangier, the long-term solution may not lie in temporary fixes but in a planned relocation strategy that ensures the safety and sustainability of the community while preserving its heritage in a safer location.

However, this approach requires addressing the deeply rooted concerns of residents of Tangier who may resist relocation. Transparent communication and inclusive planning are critical to building trust and understanding. Relocation efforts must actively involve the community, addressing issues like maintaining social cohesion, securing livelihoods, and preserving cultural identity. By prioritizing these needs and ensuring robust financial and logistical support, the transition can honor Tangier's legacy while safeguarding its future. This strategy is not about abandoning Tangier's history but ensuring it continues in the face of escalating climate threats.

B. Regional and Interstate Initiative: The Chesapeake Bay Foundation

For decades, the Chesapeake Bay Foundation (CBF) has been at the forefront of efforts to restore and protect the Chesapeake Bay's fragile ecosystem.[178] The CBF was founded in 1966 by a group of concerned residents and environmental advocates as a grassroots movement to fight the pollution and environmental damage that were harming the Bay.[179] The CBF has made significant progress in addressing the impacts of climate change across the Chesapeake Bay region by improving water quality, reducing pollution, and enhancing ecosystem resilience.[180] For example, through initiatives like the Keystone 10 million Trees Partnership, the CBF has collaborated with local farmers and other environmental partners to plant trees that help reduce

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[177] *Id.*; *Manhattan's Economic Prowess: A Pillar of the United States Economy,* MANHATTAN VIRTUAL OFF. (Mar. 3, 2024) (highlighting the significance of Manhattan for the U.S. economy); Press Release, New York City Econ. Dev. Corp., NYCEDC and MOCR Releases FiDi & Seaport Climate Resilience Plan (Dec. 29, 2021) ("The plan, projected to cost $5 to $7 billion, reimagines the shoreline of Lower Manhattan and creates a resilient waterfront to withstand severe coastal storms and rising sea levels."); *see also Coastal Storm Risk Management Projects*, DEP'T ENV'T CONSERVATION (last visited Dec. 22, 2025) (estimating that the South Shore Staten Island Coastal Storm Risk Management Project will cost $615 million, funded by "65% Federal, 24.5% State, and 10.5% City.").

[178] *About CBF*, CHESAPEAKE BAY FOUND. (last visited Dec. 22, 2025).

[179] *Mission and Vision*, CHESAPEAKE BAY FOUND. (last visited Dec. 22, 2025).

[180] *Id.*

stormwater runoff, prevent soil erosion, and improve water quality in streams and rivers feeding into the Bay.[181] Additionally, the CBF has focused on establishing "living shorelines," which use natural vegetation to stabilize coastal areas, reducing the need for hardened structures that may exacerbate erosion over time.[182] These efforts are aimed at building climate resilience throughout the Chesapeake watershed, addressing concerns from pollution to extreme weather impacts.[183]

Despite the wide scope of the CBF's environmental programs, their general focus on the broader Chesapeake Bay region presents limitations when applied to communities facing acute, localized risks, such as Tangier Island.[184] While the CBF's living shorelines and green infrastructure initiatives serve as critical tools in managing environmental degradation and stormwater in many areas, they are not comprehensive enough to fully mitigate the unique challenges posed to Tangier Island. The island's rapid rate of erosion and exposure to intensified storm surges require a combination of larger-scale structural adaptations and localized environmental interventions, such as seawalls or raised barriers, that go beyond typical nonprofit environmental projects.

Moreover, Tangier Island's isolation and limited access to emergency response resources amplify the need for targeted resilience efforts.[185] Unlike mainland regions, where the CBF's programs contribute to a broader framework of municipal support and emergency management for other communities, Tangier's distance from infrastructure networks makes recovery and resilience far more challenging. [186]

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[181] *Keystone 10 Million Trees Partnership*, CHESAPEAKE BAY FOUND. (last visited Dec. 22, 2025); *About*, KEYSTONE 10 MILLION TREES P'SHIP (last visited Dec. 22, 2025).
[182] *Living Shorelines*, CHESAPEAKE BAY FOUND. (last visited Dec. 22, 2025)
[183] *Id.*
[184] *Impact Report, Fiscal Year 2023*: *Milestones and Momentum: Promise and Progress on the Road to Clean Water*, CHESAPEAKE BAY FOUND. 2 [hereinafter *Impact Report, Fiscal Year 2023*] (last visited Dec. 22, 2025) (highlighting achievements such as converting nearly 500 acres of farmland to rotationally grazed pastures, inspiring 22,004 advocacy actions for clean water, educating over 21,000 students and teachers, and securing a landmark settlement that bolstered enforcement of the Chesapeake Clean Water Blueprint).
[185] VA HAZARD MITIGATION PLAN, *supra* note 48, at 334–336.
[186] *Impact Report, Fiscal Year 2023*, *supra* note 184, at 4 (highlighting how efforts have helped volunteers with shoreline projects, resiliency, and food security).

C. Are Federal and State Efforts Truly Complementary?

Recent developments, including a June 2024 visit to Tangier Island by federal, state, and local officials, show growing attention to the island's rapid land loss and climate vulnerability.[187] This meeting was attended by federal, state, and local officials, along with community leaders and organizations such as the CBF, and aimed to address solutions for the island's accelerating erosion and rising sea levels.[188] Officials toured erosion sites by boat and discussed next steps such as developing a certified resilience plan, investing in engineering studies and dredge-spoil protection, and pursuing other funding opportunities.[189] Participants expressed optimism about collaboration, but the meeting also illustrated how difficult implementation becomes when federal planning, state regulatory authority, and local urgency must function together without a unified structure.[190] The Tangier meeting makes clear that coordination efforts exist, but structures do not.

This fragmentation points to a need for cooperative federalism, a framework designed to leverage federal resources and policy direction while allowing states the flexibility to address local priorities.[191] Cooperative federalism is particularly relevant for complex issues like climate adaptation, where the federal government can provide consistent funding, such as through BRIC, and states can tailor these resources to meet their unique challenges.[192] Ideally, this model would align federal and state efforts, creating a streamlined approach for large-scale climate adaptation strategies.

However, the reactive and fragmented nature of current federal and state initiatives often undermines this ideal. The federal government's focus largely remains on post-disaster aid, which provides relief but lacks the proactive, coordinated planning needed for sustainable, long-term adaptation efforts.[193] A

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[187] Madie MacDonald & Tom Schaad, *Tangier Island's Shrinking Landscape Sparks Action from Officials*, WAVY (June 4, 2024).
[188] *Id.*
[189] *Id.*; Press Release, Chesapeake Bay Found., Leaders Seek Solutions to Protect Tangier Island from Climate Change Threat (May 31, 2024).
[190] *Id.*; MacDonald & Schaad, *supra* note 187.
[191] Manisha Patel & Allie Reilly, *Cooperative Federalism A Path to Proactive Managed Retreat*, 35 NAT. RES. & ENV'T, Winter 2021, at 20, 21–23.
[192] *Id.* at 21–24; *BRIC*, *supra* note 151.
[193] *See* Press Release, Fed. Emergency Mgmt. Agency, Biden-Harris Administration Reforms Disaster Assistance Program to Help Survivors Recover Faster (Jan. 19, 2024) (announcing that

more proactive, outcomes-based finance model is essential—one led by the federal government that empowers states to create forward-looking strategies for at-risk coastal communities like Tangier.[194]

While cooperative federalism offers a balanced model in theory, several systemic issues complicate its success. First, federal funding often comes with extensive planning, reporting, and matching-fund requirements that many states lack the administrative capacity or resources to satisfy, making it difficult to access or fully implement federally financed resilience programs.[195] The Supreme Court's anti-commandeering doctrine further complicates things, as it reinforces states' rights to resist federal direction, preventing efforts to standardize climate adaptation strategies nationwide.[196] The current "patchwork" approach to coastal governance—where state, federal, and local jurisdictions frequently overlap—exacerbates these challenges. With diverse, sometimes conflicting regulations and priorities, states often do not implement cohesive, large-scale climate adaptation strategies because of the lack of a unified national strategy and clear federal alignment on long-term goals.

The relocation of Isle de Jean Charles in Louisiana provides an example of how these challenges manifest in practice. Federal, state, and local entities have been working together to relocate this small coastal community, which has suffered from severe land loss due to climate change and subsidence.[197] Funded primarily through a $48 million federal grant under the National Disaster Resilience Competition, the project highlights the complexities of cooperative

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FEMA's Individual Assistance program would provide assistance to survivors of extreme weather events, but does not provide adaptation or preventative assistance).

[194] *See, e.g.*, South Dakota v. Dole, 483 U.S. 203, 207–08 (1987) (establishing that Congress may condition the receipt of federal funds under its Spending Clause authority, provided that the conditions are unambiguous, related to the federal interest, and not coercive—providing the framework for federal government to incentive states to take proactive actions).

[195] *See, e.g.*, Weber, *supra* note 157 (highlighting how most of the first round of BRIC funding went to wealthy coastal states that had the resources needed to apply); *Match Requirements Prevent Rural and Low-capacity Communities from Accessing Climate Resilience Funding*, HEADWATERS ECON. (Jan. 13, 2023).

[196] New York v. United States, 505 U.S. 144, 188 (1992); *see* Printz v. United States, 521 U.S. 898, 935 (1997) (extending the anti-commandeering principle to prevent the federal government from requiring state officials to enforce federal law); *see also* National Federation of Independent Business v. Sebelius, 567 U.S. 519, 576–85 (2012) (striking down Medicaid expansion under the Affordable Care Act as unconstitutionally coercive and exceeding the limits of conditional funding).

[197] Olga Loginova & Zak Cassel, *Leaving the Island: The Messy, Contentious Reality of Climate Relocation*, CTR. FOR PUB. INTEGRITY (Aug. 17, 2022).

federalism.[198] While federal funds enabled the relocation, strict conditions tied to the funding created hurdles, such as the need to comply with federal requirements.[199] Additionally, the project had to navigate tensions among stakeholders at different levels of government, reflecting the broader challenges of cooperative federalism.[200] Moreover, the relocation faced resistance from some residents early on, reflecting the difficulty of aligning community needs with broader governance structures.[201]

This example illustrates both the potential of cooperative federalism to address large-scale climate challenges and the significant structural adjustments needed to ensure its success. Streamlining funding processes, reducing bureaucratic hurdles, and fostering stronger alignment among federal, state, and local entities are essential for fostering more effective and scalable climate adaptation strategies.

V. MANAGED RETREAT: A PROPOSED COMMUNITY-DRIVEN SOLUTION FOR CLIMATE CHANGE ADAPTATION FOR TANGIER

Part III of this Article examined the shortcomings of existing legal frameworks in addressing Tangier Island's climate-related challenges. It highlighted how rigid regulations often fail in addressing climate-related issues and can even trigger takings claims when they deprive property owners of economic value.[202] However, within the context of managed retreat, such regulations could serve as essential tools for safeguarding Tangier Island's future. Managed retreat—strategically relocating people and infrastructure from high-risk areas—often faces resistance due to concerns about property rights and economic losses.[203]

This Article argues that a community-driven retreat framework for Tangier Island could both respect property rights and address takings claims through a collaborative, equitable relocation process. As climate threats intensify, redefining climate change as an immediate, emergency-level threat becomes essential if state and federal authorities are to exercise their power to take private

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[198] *Id.*
[199] *Id.*
[200] *Id.* For example, the Jean Charles Tribe's Tribal Council was "shocked" when they were not included in the roundtable of citizens affected by the relocation. *Id.*
[201] *Id.*
[202] *Supra* Part III.
[203] *Managed Retreat Toolkit*, GEORGETOWN CLIMATE CTR. (last visited Dec. 22, 2025).

property for public use.[204] By framing climate change as a clear and present danger, managed retreat can be viewed as an urgent and necessary strategy for community preservation, rather than a drastic last resort.

A. Redefining Imminent and Emergency for Climate Contexts

The legal understanding of "imminence" has traditionally been tied to sudden, isolated events like fires.[205] However, climate change presents a fundamentally different kind of crisis—one that unfolds gradually yet relentlessly, threatening communities through cumulative impacts such as sea-level rise, coastal erosion, and increasingly severe storms.[206] This divergence from the conventional understanding of an emergency calls for a redefinition of imminence in the context of climate threats, recognizing the extended timeline and progressive impacts of climate change as equally urgent and consequential.[207]

Some courts have recognized flooding, especially when intensified by natural disasters, as an imminent threat that justifies government intervention on private property.[208] For example, in *Dudley v. Orange County*, the Florida Second

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[204] VA. CONST. art. I, § 11 ("No private property shall be damaged or taken for public use without just compensation to the owner thereof"); U.S. CONST. amend. V ("nor shall private property be taken for public use, without just compensation").

[205] *See, e.g.*, Surocco v. Geary, 1853 Cal. LEXIS 8, 9–10 (1853):

> In the absence of any legislation on the subject, we are compelled to fall back upon the rules of the common law. The evidence in this case clearly establishes, the fact, that the blowing up of the house was necessary, as it would have been consumed had it been left standing. The plaintiffs cannot recover for the value of the goods which they might have saved: they were as much subject to the necessities of the occasion as the house in which they were situate; and if in such cases a party was held liable, it would too frequently happen, that the delay caused by the removal of the goods would render the destruction of the house useless.

[206] Stuart P.M. Mackintosh, *Climate Change That Happened Gradually is Accelerating Suddenly*, THE HILL (Mar. 31, 2022).

[207] David E. Adelman, *The Challenge of Abrupt Climate Change for U.S. Environmental Regulation*, 58 EMORY L.J. 379, 381 (2008) ("despite [] recognition of the potential for abrupt climate change, the vast majority of research and reports on the ecological and societal impacts of climate change, . . . are premised on 'slow and gradual' processes,'" reflecting a significant "blindspot in climate change policy.").

[208] Robin Kundis Craig, *Adapting Water Law to Public Necessity: Reframing Climate Change Adaptation as Emergency Response and Preparedness*, 11 VT. J. ENV'T. L. 709, 739–740 (2010).

District Court of Appeals upheld the county's decision to construct dams that temporarily flooded private property as an emergency measure during a declared disaster.[209] While this action caused significant property damage, the court viewed the flooding as an imminent public danger necessitating government action to protect public health and safety.[210] This case illustrates that when faced with imminent public danger, such as flooding, governmental actions aimed at averting widespread harm may override individual property rights without the requirement of compensation for temporary flooding under the county's exercise of its police powers during an emergency.[211]

The *Dudley* decision is instructive in highlighting how courts view the concept of imminence in addressing environmental threats. Although the case involved an immediate hazard, its reasoning suggests that worsening and prolonged conditions—such as those caused by climate change—might also meet the threshold of imminence.[212] The court's acknowledgment that severe flooding constitutes an imminent threat provides a compelling framework for considering preemptive action in the face of climate-related risks, like the gradual submersion of Tangier Island.[213] However, *Dudley* did not address the gradual nature of climate change, leaving open the question of how courts might apply its reasoning to slower-developing crises.

By expanding the legal scope of imminence to encompass the ongoing threats caused by climate change, the groundwork can be laid for a managed retreat approach that anticipates rather than reacts to climate impacts. For Tangier Island, where daily life is increasingly shaped by rising waters and eroding land, a redefined concept of emergency offers a way for the community to view takings and managed retreat as proactive solutions. Rather than waiting for catastrophic flooding or forced evacuations, Tangier could approach managed retreat as a structured, community-led process that empowers residents to balance preservation with relocation, ensuring their voices shape the transition.

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[209] Dudley v. Orange County, 137 So. 2d 859, 861–63 (Fla. Ct. App. 1962).
[210] *Id.*
[211] *Id.* at 862; Craig, *supra* note 208, at 740–742 (exploring when compensation is and is not required when there is a public necessity).
[212] *Dudley*, 137 So. 2d at 863.
[213] *Id.* (internal citation omitted).

B. Managed Retreat: Balancing Public Safety and Cultural Preservation

Can the managed and strategic relocation of Tangier Island's residents to nearby coastal areas like Chesconessex offer a lifeline that preserves their way of life while ensuring their safety for generations to come? This question lies at the heart of ongoing efforts to determine whether managed retreat can work for Tangier Island. For Tangier Island, where the community's long-term survival is increasingly precarious, relocation may not only be a solution but a necessity. However, this raises a critical question: who decides? Should decisions rest with federal or state authorities, given their resources and expertise, or should the community itself have the primary voice in shaping its future? Managed retreat is not just about logistics but about ensuring that the community's identity, heritage, and needs guide the process, balancing external mandates with local agency.

To explore these complexities, this Part examines Isle de Jean Charles as a case study of managed retreat, identifying both its successes and challenges. Drawing from these lessons, this Article proposes a framework for applying a managed retreat model to Tangier Island that prioritizes collaboration, ensuring that decisions are made inclusively and transparently, with the community at the center of the process while addressing safety and cultural preservation.

i. Understanding Managed Retreat: Isle de Jean Charles, a Case Study

This Article has introduced the concept of managed retreat in parts, but what exactly is managed retreat? Managed retreat is often referred to as the planned, purposeful relocation of communities and assets away from areas at risk of environmental hazards.[214] Managed retreat is a strategy that has emerged as vital in addressing climate change–induced displacement.[215] Yet, the relocation of communities like Isle de Jean Charles illustrates the process, complexities, and challenges inherent in implementing managed retreat.[216] The managed retreat of Isle de Jean Charles began with significant federal support and structured

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[214] GEORGETOWN CLIMATE CTR., *supra* note 203 (Managed retreat is defined as the planned, purposeful, coordinated "movement and transition of people and ecosystems away from vulnerable" areas).
[215] *Id.*
[216] Adam Crepelle, *The United States First Climate Relocation: Recognition, Relocation, and Indigenous Rights at the Isle De Jean Charles,* 6 BELMONT L. REV. 1, 1–3 (2018).

planning.[217] In 2016, the United States Department of Housing and Urban Development (HUD) allocated a $48 million grant for the community's relocation inland, marking it as the first federally funded climate relocation in the United States.[218] The grant aimed to move residents from their vulnerable coastal location in Louisiana to a safer inland site while preserving their cultural heritage.[219] The relocation was carried out in phases to address logistics, site selection, and community needs, acknowledging the importance of providing a culturally appropriate solution.[220]

The first phase, completed between June 2016 and November 2016, focused on gathering data and understanding residents' preferences and concerns.[221] Outreach revealed diverse and sometimes conflicting priorities, such as privacy, safety, flood protection, and cultural preservation.[222] However, engagement challenges emerged as only a few residents actively participated in early community meetings and surveys.[223]

Phase II took place from December 2016 to February 2019.[224] During this phase, the state conducted a thorough site evaluation process in Terrebonne Parish.[225] By May 2017, residents were invited to visit potential relocation sites, and by July 2017, the Resettlement team started hosting community meetings to discuss the advantages and disadvantages of various sites, appraised values, and preferences.[226] A steering committee of island residents and stakeholders, including representatives from the United Houma Nation (UHN)—a state-recognized Native American Tribe in Louisiana with about 19,000 members living across a six-parish service areas in southeastern Louisiana—and the Isle de Jean Charles Band of Biloxi-Chitimacha Confederation of Muskogees—a

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[217] *Id.* at. 26–28.
[218] *Id.* at 26–27; Press Release, Off. of Cmty. Dev. Disaster Recovery Unit, LA Receives $92 Million from U.S. Dept. of Housing and Urban Development for Coastal Communities, Disaster Resilience, (Jan. 25, 2016); Coral Davenport & Campbell Robertson, *Resettling the First American 'Climate Refugees'*, N.Y. TIMES (May 2, 2016).
[219] Crepelle, *supra* note 216, at 36–37.
[220] *Isle de Jean Charles Resettlement*, DIV. ADMIN. OFF. CMTY. DEV. - DISASTER RECOVERY (last visited Dec. 22, 2025).
[221] Crepelle, *supra* note 216, at 29.
[222] *Id.* at 31.
[223] *Id.* at 29–39.
[224] *Isle de Jean Charles Resettlement*, *supra* note 220.
[225] DIV. ADMIN. OFF. CMTY. DEV. - DISASTER RECOVERY, COMMUNITY MASTER PLANNING AND PROGRAM DEVELOPMENT FOR THE ISLE DE JEAN CHARLES RESETTLEMENT: PHASE 2 REPORT 12 [hereinafter RESETTLEMENT PHASE 2 REPORT] (July 2021).
[226] *Id.*

state-recognized tribal community in Terrebonne Parish whose ancestral homeland has lost over 98% of its land to erosion and sea-level rise—was established to ensure community involvement.[227] A master planning process began in January 2018, involving design workshops with planners, architects, and residents to develop infrastructure and housing that aligned with the community's cultural values.[228] By December 2018, following environmental reviews, the Louisiana Land Trust acquired the 515-acre property that would be used for the new community, known as "The New Isle."[229] This site was designed to accommodate approximately 120 homes, with plans for commercial and retail spaces, a community center, and walking trails.[230]

Phase III started in May 2020.[231] It involves implementing the master plan through further environmental reviews, site design finalization, infrastructure development, housing construction, and workforce training programs.[232] By November 2019, the island residents officially named the new community "The New Isle," and infrastructure construction began in May 2020.[233] This phase also sought to ensure a smooth transition for residents, including addressing concerns about the disruption of traditional livelihoods, particularly fishing, and providing job training opportunities.[234] Phase III also includes business development, workforce training, and identification of community gardens, cultural centers, and educational spaces to preserve traditional practices and create future economic pathways.[235] Evaluating whether these strategies strengthen long-term economic stability for Isle de Jean Charles could offer a useful model for Tangier Island, particularly as Tangier confronts similar questions of livelihood transition, cultural preservation, and post-relocation self-sufficiency.

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[227] *Id.*; *About Houma Nation*, UNITED HOUMA NATION (last visited Dec. 22, 2025); *The Biloxi-Chitimacha-Choctaw Community and Their Land*, NAT'L GEOGRAPHIC (last visited Dec. 22, 2025).
[228] RESETTLEMENT PHASE 2 REPORT, *supra* note 225, at 12.
[229] *Id.*; *Isle de Jean Charles Resettlement*, *supra* note 220.
[230] *Resettlement of Isle de Jean Charles: Background and Overview*, DIV. ADMIN. OFF. CMTY. DEV. - DISASTER RECOVERY 6 [hereinafter *Isle de Jean Charles Background and Overview*] (June 9, 2020).
[231] RESETTLEMENT PHASE 2 REPORT, *supra* note 225, at 13.
[232] *Id.*
[233] *Isle de Jean Charles Background and Overview*, *supra* note 230, at 6.
[234] *Id.*
[235] *Tribal Resettlement*, Isle de Jean Charles (last visited Dec. 22, 2025). Nearby universities and colleges, such as Nichols State University and Louisiana Technical College already had nearby job training programs that community members could participate in. Crepelle, *supra* note 216, at 36.

The final phase will involve moving eligible families into the new community under a forgivable mortgage program, where one-fifth of the mortgage would be forgiven annually over five years, provided the family maintained primary residency there and acquired insurance.[236] Eligibility was limited to residents living on the island as of Hurricane Isaac's landfall on August 28, 2012, or those displaced since that date.[237] This approach was intended to ensure voluntary participation, respecting residents' choices to either relocate or remain on the island, but it also meant that many long-displaced tribal members were excluded from the relocation.[238]

Notably, the program did not include a formal buyout of residents' existing island homes.[239] Instead, many families left behind properties that were no longer habitable or insurable, resulting in unreimbursed economic loss for some households and raising concerns about the long-term sustainability of the relocation plan.[240] The phased mortgage forgiveness aimed to reduce the financial burdens of the newly relocated residents while fostering a sense of ownership in the new community.[241]

The Isle de Jean Charles Resettlement Project illustrates the intricate challenges of managed retreat, from engaging diverse communities and balancing cultural preservation to navigating tribal disputes, bureaucratic mandates, and economic disruption. Despite significant federal and state support, the process faced substantial hurdles, including early missteps in community outreach, tension between state officials and tribal leaders over project control, and friction caused by HUD's requirements. These requirements altered the original relocation vision, forced a broader and less culturally specific eligibility standard, and fueled concerns about the new site's distance from traditional fishing grounds, which threatened the livelihoods and identity of many residents.

Still, the project remains one of the most ambitious and instructive examples of climate-induced relocation in the United States. For similarly situated

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[236] *Isle de Jean Charles Resettlement Homebuyer Assistance Program Policies*, DIV. ADMIN. OFF. CMTY. DEV. - DISASTER RECOVERY 12–14 [hereinafter *Homebuyer Assistance Policies*] (Nov. 10, 2020).
[237] *Id.* at 8–9; RESETTLEMENT PHASE 2 REPORT, *supra* note 225, at 46.
[238] RESETTLEMENT PHASE 2 REPORT, *supra* note 225, at 46.
[239] *Id.*
[240] Will McGrew, *Jean Charles Choctaw Nation Challenges State Resettlement Plan in Legal Complaint to HUD*, WWNO (Dec. 23, 2023).
[241] RESETTLEMENT PHASE 2 REPORT, *supra* note 225, at 38, 47–48.

communities like Tangier Island, its lessons illustrate the need for early, inclusive engagement, clarity in relocation eligibility, mitigation of economic loss, and an approach that empowers local leadership while ensuring long-term cultural and economic viability.

ii. Managed Retreat Applied to Tanger Island

Given Tangier Island's unique circumstances—its limited size, economic constraints, and the relentless pace of sea-level rise—managed retreat emerges as the only viable long-term solution.[242] Although the islanders would prefer to "fix" the island, large-scale infrastructure projects akin to the Netherlands' impressive levee system are impractical due to their prohibitive costs and temporary benefits.[243] The Netherlands has taken a proactive approach by implementing strategies like the "Room for the River" program, which reduces flood risk by deliberately giving rivers more space.[244] These measures include moving dykes inland, lowering floodplains, and creating designated flood channels that safely absorb excess water during periods of high rainfall, rather than relying solely on barriers to block it.[245] While the Netherlands has safeguarded its citizens through decades-long, multibillion-dollar projects backed by strong governmental policies, replicating such large-scale efforts in the United States remains unlikely.[246] Unlike the proactive approach seen in the Netherlands, U.S. policies often inadvertently encourage continued habitation in high-risk areas.[247] For Tangier Island, where resources are constrained and sustaining extensive infrastructure is not feasible, managed retreat is the most strategic choice. This approach balances safety, financial prudence, and the preservation of community identity in the face of unavoidable environmental change.

To begin, the state could exercise its eminent domain authority under the Takings Clause, along with federal support, to relocate the community to a safe, suitable area in coastal Virginia by taking private property.[248] Eminent domain allows the government to take private property for public use with just

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[242] Sinclair, *supra* note 12, at 308.
[243] *Id.* at 290, 292–293.
[244] *Room for the River*, RIJKSWATERSTAAT MINISTRY INFRASTRUCTURE & WATER MGMT. (last visited Dec. 22, 2025).
[245] *Id.*
[246] Sinclair, *supra* note 12, at 293 (noting that the program is unlikely due to political willpower and lack of similar existing insurance and policy systems).
[247] Brian Stone Jr., *The Lunacy of Rebuilding in Disaster-Prone Areas*, NOĒMA MAG. (Apr. 25, 2024).
[248] Nevitt, *supra* note 127, at 1058, 1109.

compensation.[249] If climate change is viewed as an imminent threat, the doctrine of eminent domain can be used, as it has historically addressed public welfare risks and meets the public use requirement.[250] That recognition could arise through legislative reform expressly defining climate-threatened land as a public danger requiring preemptive action, or through court decisions that extend eminent domain precedent to climate-based relocation. With that legal foundation in place, Virginia could initiate phase one by planning and acquiring relocation property and developing a long-term transition structure for Tangier residents.[251]

In the first phase, the state would begin by gathering detailed information from Tangier Island residents to understand their priorities, concerns, and cultural preservation needs, similar to the approach taken with Isle de Jean Charles.[252] This step ensures that the relocation process is guided by the community's input and reflects their unique identity. Once this groundwork is laid, the state could initiate voluntary eminent domain proceedings, ensuring the fair market value of the properties residents are leaving behind is accounted for, and offering compensation to those who voluntarily agree to relocate. To prevent displacement anxiety, the state could guarantee that residents remain in their current homes until their new housing is complete and ready for move-in. As part of this process, residents would receive assurances that new homes will be provided in a subsequent phase, designed to reflect their former homes while meeting the building codes and regulations of the new locality. This phased turnover model, where residents do not relinquish possession until new housing is available, would help preserve community trust and minimize disruption. A community-focused approach is essential to ensure that the relocation is equitable and culturally sensitive from the outset.

In the second phase, the state would work with Tangier Island residents to select a relocation site that preserves their cultural identity, maritime lifestyle, and economic practices. While Chesconessex is a strong candidate, other coastal areas in Virginia should also be considered to ensure the best fit. Residents should take the lead in choosing the site and developing a relocation plan that benefits the

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[249] *Id.* at 1068–1069.
[250] *Surocco*, 1854 Cal. LEXIS 8, 9 (1853); *Kelo*, 545 U.S. 469, 480–90 (2005) (summarizing cases where eminent domain was allowed for public use).
[250] *Kelo*, 545 U.S. at 480–90.
[251] *E.g.*, *Isle de Jean Charles Background and Overview*, *supra* note 230, at 5–6 (describing the first steps of the resettlement as data gathering, site selection, and land acquisition).
[252] *Id.*

majority of them. Proximity to water is essential to support fishing and crabbing livelihoods and maintain their connection to the Chesapeake Bay.

Drawing from the Isle de Jean Charles example, community-driven decision-making is key. Allowing residents to guide the process ensures the relocation plan respects their cultural values and social bonds. Although some residents may need to settle a few miles apart, the relocation effort should aim to maintain the community's cohesion and way of life. The availability of multiple coastal properties in Virginia makes relocation achievable while preserving Tangier's identity and continuity in a new, safer location.[253] For those who may wish to stay, the state could offer an alternative solution, allowing residents to remain on the island until it becomes uninhabitable or until they pass away.[254] In this case, new homes could be secured for their heirs, with the original property reverting to the state afterward.[255] This approach, inspired by the evacuation of Centralia, Pennsylvania, balances immediate needs with long-term planning, respecting residents' ties to their land while ensuring future safety.[256]

A realistic funding approach will be necessary. Eminent domain acquisition, home construction, heirs-based property transfer, job training, a museum, and heritage facilities cannot occur without sustained funding capacity well beyond what Tangier can provide on its own.[257] This would require the state, rather than the community, to apply for, manage, and front the costs of multiple federal grants, many of which operate on a reimbursement model. Success would depend on the state assembling a project management team capable of handling grant compliance, match requirements, reimbursement delays, and layered funding sources that may include HUD resilience funding, NOAA coastal adaptation programs, Treasury community development grants, and broader

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[253] A search on Zillow reveals approximately 500 properties currently listed for sale in coastal Virginia, including some exceeding 39 acres, offering ample options for a relocation effort that preserves Tangier Island's identity and provides a new, safer home for its residents. *See*, *Virginia Real Estate*, ZILLOW (last visited Dec. 22, 2025).

[254] *See* John Beauge, *Remaining Handful of Residents Can Stay in Centralia for the Rest of their Lives, Settlement Says*, PENNLIVE (Oct. 30, 2013) (describing how a settlement in Centralia, Pennsylvania allowed property owners to remain in their homes even though most were condemned following a mine fire in 1993).

[255] *Id.* (stating that the owners in Centralia signed "quit claim deeds that . . . include confirmation that the current owners have a life estate in the property until they die").

[256] *Id.*

[257] *See Isle de Jean Charles Resettlement*, *supra* note 230 (showing that the cost to purchase a new location for the residents that had all the desired features was $11 million).

federal infrastructure programs.[258] The administrative lift is considerable, but recognizing the scale of investment makes Phase II honest. It requires not only a relocation plan but the institutional capacity to finance it, manage it, and carry Tangier through the transition.

The feasibility of such a move is reinforced by the availability of approximately 500 properties currently listed for sale in coastal Virginia, including some lots exceeding 39 acres, making relocation both realistic and achievable.[259] Although some community members may need to settle a few miles apart, it is important to remember that restitution need not be perfect; it should be reasonable and preserve the essence of the community's way of life. This approach would, for a large part, enable the residents to stay together, collectively grieve the loss of their ancestral land, and transition smoothly to a new beginning.[260] Relocating within coastal Virginia would help maintain their sense of place and continuity, offering a safer, more resilient future where Tangier Island's legacy can endure, even as climate change reshapes the landscape.

The third phase would involve constructing a new community on the relocation site chosen by Tangier Island residents. This site would reflect their preferences and cultural identity while adhering to local zoning laws. The focus would be on supporting economic stability and preserving the island's heritage. Job training programs would be implemented to help residents transition to new opportunities similar to the Isle de Jean Charles' model.[261] For those wishing to continue fishing and crabbing, targeted support would ensure these livelihoods thrive in the new location. Preserving Tangier Island's unique culture is essential. The island embodies a rich history, distinct dialect, and traditions rooted in early English settler culture.[262] Managed retreat must actively involve residents in designing their new community to maintain these elements and mitigate the trauma of relocation. In this phase, to further honor the island's legacy, the new community would include a museum dedicated to its history, culture, and maritime traditions. This institution would provide a space to celebrate the

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[258] *Community Development Block Grant Disaster Recovery Grant Funds*, DEP'T HOUSING & URBAN DEV. (last visited Dec. 22, 2025); *Climate Adaptation Partnerships Program*, NAT'L OCEANIC & ATMOSPHERIC ADMIN. (last visited Dec. 22, 2025); *Community Development Financial Institutions Fund – Program Overview*, DEP'T OF THE TREASURY (last visited Dec. 22, 2025).
[259] ZILLOW, *supra* note 253.
[260] Sinclair, *supra* note 12, at 308–309.
[261] *Tribal Resettlement*, *supra* note 253; Crepelle, *supra* note 216, at 36.
[262] *Tangier Island Dialect*, *supra* note 4.

island's history, ensuring it endures for future generations while helping residents still feel connected to their roots. This approach balances the need for safety with preserving the community's identity and way of life.

The final phase would involve the physical relocation of Tangier Island's residents to the newly identified site, payment of just compensation for their properties, and ongoing financial support to ease the transition. Residents would move into homes constructed to their specifications, ensuring the new community reflects their preferences and meets modern building standards. Fair market compensation for the abandoned properties would be distributed to property owners who chose to relocate immediately preceding their relocation. To further support the community, residents would receive annual incentives and property tax breaks for a five-year period to reduce financial strain. Additionally, mortgage assistance would be provided for the first five years to help the Islanders establish stability in their new environment. These measures are designed to ensure that the relocation does not lead to undue financial hardship, allowing residents to focus on rebuilding their lives in a safer location.

The new community would be equipped with essential infrastructure, including schools, healthcare facilities, and spaces for social and cultural activities, fostering a sense of normalcy and belonging. To support economic sustainability, the government could incentivize businesses to engage with relocated crabbers and fishermen, helping to preserve their livelihoods. While such incentives might face constitutional challenges, they would likely survive under the rational basis standard, as they serve the legitimate purpose of promoting economic stability and cultural preservation.[263] By integrating these support mechanisms, the relocation plan addresses immediate safety concerns while laying a foundation for long-term resilience and prosperity. This approach balances the logistical and emotional challenges of relocation, preserving the unique identity of Tangier Island's residents. Through just compensation, financial incentives, and comprehensive community support, this plan provides a practical and fair model for managed retreat in the face of climate change.

[263] *See* City of New Orleans v. Dukes, 427 U.S. 297, 303–06 (1976) (upholding an ordinance favoring certain vendors over others, finding the city's interest in preserving its unique character and promoting economic stability to be legitimate and rationally related to the ordinance).

C. Addressing Legal Challenges to Adaptation Measures

Moving from theory to practice, implementing managed retreat faces significant legal hurdles, particularly in the absence of established jurisprudence framing climate change as an imminent threat equivalent to traditional emergencies. This lack of precedent complicates government actions under the Takings Clause, potentially resulting in prolonged disputes with property owners unwilling to relinquish their land.

As explored throughout this Article, the Takings Clause presents a significant challenge when government actions infringe upon private property rights, even in the interest of public safety.[264] Traditionally, takings have been justified in response to acute, immediate threats, such as fires or floods, where swift action serves the public good.[265] However, climate change presents a unique challenge for managed retreat initiatives, as its impacts—rising seas, worsening storms, and shifting coastlines—are gradual but irreversible. Without clear legal recognition of climate change as an imminent threat, takings claims are likely to arise, potentially leading to protracted legal proceedings and resistance from those who view relocation as premature.

There are also several practical and legal questions beyond the scope of this Article. These include the type of support that will be provided to Tangier Island renters—would they be left with no recourse because they do not own homes? —options for those unwilling to relocate, and the source of funding for such a project. Concerns about fair compensation in eminent domain proceedings, current interest rates for new homes, potential tax increases, and balancing individual property rights with community safety further complicate the landscape. Additionally, proposals to incentivize businesses to engage with relocated crabbers and fishers, while aimed at preserving livelihoods, could invite legal challenges alleging discrimination from other local crabbers and fishers. Although such incentives may withstand constitutional scrutiny under the rational basis standard,[266] the potential for litigation would slow progress significantly, raising the risk that relocation efforts could stall before completion. These unresolved issues shed light on the need for thoughtful, legally sound strategies to ensure managed retreat aligns with constitutional protections while addressing the unique needs of Tangier Island's residents.

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[264] *Supra* Part III.
[265] Craig, *supra* note 203, at 739–742.
[266] *Dukes*, 427 U.S. at 303–06.

D. Alternatives to Managed Retreat

While managed retreat is the central focus of this Article, it is not the only strategy that can be considered for Tangier Island. Many residents have expressed a strong preference to remain on the island and preserve their way of life, advocating instead for shoreline stabilization and infrastructure improvements, such as seawalls, jetties, or raising the elevation of homes. These sentiments are rooted in generations of cultural identity, tight-knit social bonds, and a deep connection to the place. Understandably, most residents do not wish to abandon their ancestral land, especially given past federal erosion-control investments—such as the Corps' 2018 construction of a stone jetty at the Western Channel inlet to slow shoreline loss, which cost about $2.4 million.[267]

However, while these measures may delay the island's submersion, they cannot prevent it. Tangier continues to lose land at an alarming rate, and scientific models predict the island could be uninhabitable within the next few decades, regardless of near-term interventions. Hard infrastructure, such as levees or seawalls, is extraordinarily expensive, often requires perpetual maintenance, and is not guaranteed to hold up against increasingly severe storms. Elevating homes individually—another proposed solution—does not address the broader risks to critical infrastructure, access to services, or the island's eroding land base.

Thus, although residents understandably prefer to stay, the physical and economic limitations of these alternatives make them unsustainable in the long term. By acknowledging and respecting the community's desires while also confronting the scientific and logistical realities, policymakers can engage more honestly and constructively with residents to co-create a future that prioritizes safety, dignity, and cultural continuity.

VI. CONCLUSION

This Article cannot address every legal question implicated by climate adaptation policy, including whether and how renters would benefit from managed retreat or the administrative burden of program design. These significant questions warrant further exploration beyond the scope of this Article. However, this analysis evaluates the limitations of alternative adaptation strategies and

[267] Hafner, *supra* note 1; Carol Vaughn, *Tangier Island to Finally Get Jetty*, 13NEWS NOW (Aug. 27, 2018).

explains why managed retreat offers a more sustainable long-term solution. In doing so, it aims to provide a foundation for future debate and reflection, emphasizing that comprehensive and inclusive strategies are necessary for ensuring the safety, cultural preservation, and resilience of vulnerable communities like Tangier Island.

Managed retreat, grounded in the exercise of Virginia's eminent domain powers, provides a legal framework for relocating communities from high-risk areas, ensuring not only fair market compensation for those leaving their ancestral lands but also relocation to newer, more resilient homes with long-term government support. This approach respects property rights while facilitating necessary relocation, demanding a collaborative, phased process that incorporates community input and values. For Tangier Island, managed retreat can lessen the trauma of displacement by proactively planning a transition that honors residents' cultural heritage, allowing them to re-establish their way of life in safer locations. This story reflects a broader societal challenge, where preserving community identity must be balanced with adapting to environmental realities—demonstrating that climate resilience and cultural preservation can go hand in hand.